

RCRA RECORDS CENTER  
FACILITY Pratt & Whitney - Main St  
I.D. NO. CTD990672081  
FILE LOC. R-5  
OTHER RDMS # 2669

DRAFT

UNIT SPECIFIC TECHNICAL MEMORANDUM: EXPLOSIVES STORAGE  
BUILDING  
PRATT & WHITNEY, EAST HARTFORD, CT

AREA: North Klondike

SUB-AREA: Explosives Storage Area

ENVIRONMENTAL UNIT: Explosives Storage Building



RDMS DocID 2669

**Location:** North Klondike (Suntan) Area; fifth road south on north access road, from Perimeter Road (Drawing 1).

**Description:** The Explosives Storage Building was a 11 foot by 22 foot building which was surrounded by a 25 foot by 50 foot chain-link fence. The building was isolated from other structures to the west and south by an earthen berm for explosion hazard purposes.

**Dates of Operation:** Approximately 1957 to 1993.

**Processes:** Storage of hydrazine ( $H_2NNH_2$ ) and pentaborane ( $B_5H_9$ ), both are explosive liquids. Other compounds stored in this area may have included nitrogen pentoxide.

**Aerial Photographs:** Large-scale aerial photographs for 1965, 1970, and 1975 were obtained from Keystone Aerial Surveys, Inc. Three small aerial photographs, taken in 1969, 1975, and 1977, were also obtained from the Pratt & Whitney (P&W) Photographic Services Department.

The building is visible on the 1965, 1970 and 1975 aerial photographs obtained from Keystone Aerial Surveys, Inc. The area appears active and the building is intact. Operational details within the unit are not discernible, however, there are no visible indications of drains or sumps, or obvious signs of contamination.

The building is visible on the aerial photographs obtained from P&W Photographic Services. In all three aerial photographs, the building appears intact. Operational details within the area are not discernible on the photographs, however, there are no visible indications of drains or sumps, or obvious signs of contamination.

**Specific Contaminants of Concern:** Neither hydrazine ( $H_2NNH_2$ ) or pentaborane ( $B_5H_9$ ) are constituents of concern because of their volatility; however, petroleum or solvents may have also been stored in the building. In order to be as comprehensive as possible in the investigation that was conducted, the following constituent groups were analyzed for: volatile organic compounds (VOCs), and metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, nickel, and zinc), and total petroleum hydrocarbons (TPH). *VP-10MM* *VI-10MM*

**Potential Release Mechanism:** Impacts to soils and groundwater associated with potential spillage or leakage from storage of chemicals inside the building with potential subsequent migration to the subsurface.

# DRAFT

## INVESTIGATION AND REMEDIATION ACTIVITIES:

Due to the potential for a release associated with chemicals stored in the building, a subsurface investigation to determine the degree and extent of soil contamination was performed in June, July, and October 1996. Prior to 1996, no investigation had reportedly been performed.

One supplemental groundwater investigation has also been conducted in the Explosive Storage Building Environmental Unit. Groundwater samples were collected from two borings (NK-SB-12 and NK-SB-13) using Geoprobe® screen-point groundwater sampling techniques. Barium and zinc were detected in both of these groundwater samples. For a more detailed account of these sampling events refer to the LEA Technical Memorandum (TM) 3, *Groundwater Sampling and Quality*.

### June and July 1996 Investigation (LEA):

**Description:** On June 28, 1996, two soil borings, NK-SB-12 and NK-SB-13, were advanced in the vicinity of the Explosives Storage Building by Loureiro Engineering Associates, P.C. (LEA), as shown on Drawing 1. Soil samples were collected from each of the borings in continuous 2-foot intervals to 14 feet, with a one foot interval from 14 to 15 feet. The depth of 15 feet was selected to ensure that sufficient data were collected for comparisons against the direct exposure criteria in the Connecticut Remediation Standard Regulation (RSR). No soil sample was collected from boring NK-SB-13 from a depth of 14 to 15 feet due to insufficient recovery.

A total of 15 soil samples were submitted to the LEA Analytical Laboratory and screened for the presence of target VOCs, including benzene (BZ), ethylbenzene (EBZ), tetrachloroethylene (PCE), toluene (TL), 1,1,1-trichloroethane (TCA), trichloroethylene (TCE), and xylenes (XYL). Based on visual, olfactory, or instrument evidence, and with consideration of the potential release mechanism, two samples from each boring were submitted to Averill Environmental Laboratory, Inc. (AEL) and analyzed for the presence of VOCs, metals, and TPH. Semivolatile organic compounds (SVOCs) were not included because TPH was used as an indicator to determine whether a release had occurred. A summary of the samples collected and analyses performed during this investigation is included in Table 1.

In addition, using Geoprobe® screenpoint groundwater sampling techniques, groundwater samples were collected from both of the borings. The groundwater samples were collected from a depth 5 to 7 feet. The groundwater samples were submitted to AEL for analysis of VOCs, metals, and TPH. A summary of the samples collected and analyses performed is included in Table 1.

**Investigation Results:** Based on the boring logs, groundwater was encountered at approximately 4 feet in both borings. Varved clay was encountered at 11 feet in boring NK-SB-12 and at 10 feet in boring NK-SB-13. No visual or olfactory evidence of contamination was noted on the boring logs.

Concentrations of constituents detected in soil samples collected for this unit are presented in Table 2. A complete summary of the sample analytical results with detection limits is presented

# DRAFT

in Table 3. The highest concentration of each constituent detected at each sampling location is shown on Drawing 1. No VOCs were detected in the soil samples submitted to the LEA Analytical Laboratory or to AEL. No TPH was detected in the soil samples submitted to AEL. One or more of the metals analyzed were detected in each of the four samples submitted for analysis. These metals include arsenic, barium, chromium, nickel, and zinc. Chromium was detected in NK-SB-12 at a depth of 2 to 4 feet at a concentration of 5.6 milligrams per kilogram (mg/kg) and in NK-SB-13 at concentration of 18.1 mg/kg. Other metals were detected at concentrations consistent with the appropriate background concentrations.

Concentrations of constituents detected in groundwater samples collected for this unit are presented in Table 4. A complete summary of groundwater sample analytical results with detection limits is presented in Table 5. Barium and zinc were detected in the groundwater samples collected from soil borings NK-SB-12, and NK-SB-13. Barium was detected in NK-SB-12 and NK-SB-13 at concentrations of 0.019 and 0.014 milligrams per liter (mg/l), respectively. Zinc was detected in NK-SB-12 and NK-SB-13 at concentrations of 0.018 and 0.042 milligrams per liter (mg/l), respectively.

**Data Evaluation and Conclusions:** The data were compared against the default numeric criteria included in the RSR and the site-wide background soil concentrations for the North Klondike for various metals. Criteria are established in the RSR based on exposure pathways for various environmental media, including soil and groundwater. The evaluation of the soils data is based on a comparison to the residential direct exposure criteria (RDEC), industrial/commercial direct exposure criteria (IDEC) and the GB pollutant mobility criteria (GBPMC) included in the RSR and the site-specific background soil concentrations. The evaluation of groundwater data is based on a comparison to the residential volatilization criteria (RVC), the industrial/commercial volatilization criteria (IVC), and the surface water protection criteria (SWPC) included in the RSR.

The concentrations of the metals detected in the soil samples are typical of background concentrations, except for chromium detected at a concentration of 18.1 mg/kg in boring NK-SB-13 at a depth of 2 to 4 feet. The metals detected at this unit, except for chromium detected in boring NK-SB-13 at a depth of 2 to 4 feet, and are not indicative of a release from this unit.

For the metals detected in soil, no exceedances of the RDEC and IDEC were noted. For the metals detected in groundwater, no exceedances of the SWPC were noted.

Based on the laboratory results for chromium, this area was not adequately characterized. Limited additional characterization was necessary to address a possible release of chromium.

## October 1996 Investigation (LEA):

**Description:** On October 17, 1996, three soil borings, NK-SB-211 through NK-SB-213, were advanced in the vicinity of the Explosives Storage Building by LEA, as shown on Drawing 1. The borings were advanced to a depth of 12 feet. The depth of 12 feet was selected to ensure that the varved clay was encountered. Soil samples were collected from each of the borings in continuous 2-foot intervals.

# DRAFT

A total of 19 soil samples were submitted to the LEA Analytical Laboratory and screened for the presence of target VOCs. Based on an elevated reading obtained with a photoionization detector (PID), one sample from NK-SB-213 was submitted to AEL and analyzed for the presence of VOCs. Based on an elevated chromium concentration in NK-SB-13 at a depth of 2 to 4 feet, one sample from the nearest boring (NK-SB-211) was submitted to AEL and analyzed for chromium. A summary of the samples collected and analyses performed during this investigation is included in Table 1.

**Investigation Results:** Based on the boring logs, groundwater was encountered at approximately 6 feet in all three borings. Varved clay was encountered at 8.5 feet in boring NK-SB-213 and at 10.5 feet in borings NK-SB-211 and NK-SB-212. A single elevated field headspace reading was observed in soil boring NK-SB-213.

Concentrations of constituents detected in soil samples collected for this unit are presented in Table 2. A complete summary of the sample analytical results with detection limits is presented in Table 3. No VOCs were detected in the soil samples submitted to the LEA Analytical Laboratory or to AEL. Chromium was not detected in the soil sample submitted for analysis from boring NK-SB-211.

**Data Evaluation and Conclusions:** Based on field observations and the laboratory results, this area has been adequately characterized. Based on the lack of detectable concentrations of chromium in boring NK-SB-211, the source for the, chromium which was detected above background in boring NK-SB-13, appears to be natural. There was no apparent evidence that a release has occurred.

## PROPOSED ACTIONS:

Adequate characterization has been performed to address possible releases. No exceedances of default numeric criteria were detected, and no further evaluation or remedial activity is warranted.

## REFERENCES:

Keystone Aerial Surveys, Inc. 1965, *Aerial Photo of Rentschler Airport and Surrounding Areas*, East Hartford, CT.

Keystone Aerial Surveys, Inc. 1970, *Aerial Photo of Rentschler Airport and Surrounding Areas*, East Hartford, CT.

Keystone Aerial Surveys, Inc. 1975, *Aerial Photo of Rentschler Airport and Surrounding Areas*, East Hartford, CT.

Loureiro Engineering Associates, August 18, 1995, *Rentschler Airport and Klondike Areas Data Gap Investigation and Work Plan*, Pratt & Whitney, 400 Main Street, East Hartford, CT.

Loureiro Engineering Associates, October 1995, *Rentschler Airport and Klondike Areas Data Gap Investigation and Work Plan*, United Technologies Corporation, Pratt & Whitney, 400 Main

# DRAFT

Street, East Hartford, CT.

P&W Photographic Services Department, 1969, *Aerial Photograph, Negative Number Z-36268*,  
Pratt & Whitney, East Hartford, CT.

P&W Photographic Services Department, 1975, *Aerial Photograph, Negative Number CN-50747*, Pratt & Whitney, East Hartford, CT.

P&W Photographic Services Department, 1977, *Aerial Photograph, Negative Number 77445-0054AB* Pratt & Whitney, East Hartford, CT.

**TABLES**

**Table 1**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 1 of 2

Sample Information						Analysis Information								
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Extraction	Miscellaneous
NK-SB-12	1015488	6/28/96	0	2	SB	x								
NK-SB-12	1015489	6/28/96	2	4	SB	x	x					x	x	x
NK-SB-12	1015490	6/28/96	4	6	SB	x								
NK-SB-12	1015491	6/28/96	6	8	SB	x	x					x		x
NK-SB-12	1015492	6/28/96	8	10	SB	x								
NK-SB-12	1015493	6/28/96	10	12	SB	x								
NK-SB-12	1015494	6/28/96	12	14	SB	x								
NK-SB-12	1015495	6/28/96	14	15	SB	x								
NK-SB-12	1015676	7/3/96	5	7	GW		x					x		x
NK-SB-13	1015496	6/28/96	0	2	SB	x								
NK-SB-13	1015497	6/28/96	2	4	SB	x	x					x	x	x
NK-SB-13	1015498	6/28/96	4	6	SB	x								
NK-SB-13	1015499	6/28/96	6	8	SB	x								
NK-SB-13	1015500	6/28/96	8	10	SB	x								
NK-SB-13	1015501	6/28/96	10	12	SB	x	x					x		x
NK-SB-13	1015502	6/28/96	12	14	SB	x								
NK-SB-13	1015675	7/3/96	5	7	GW		x					x		x
NK-SB-211	1019322	10/17/96	0	2	SB	x								
NK-SB-211	1019323	10/17/96	2	4	SB	x						x		
NK-SB-211	1019324	10/17/96	4	6	SB	x								
NK-SB-211	1019325	10/17/96	6	8	SB	x								
NK-SB-211	1019326	10/17/96	6	8	SB	x								
NK-SB-211	1019327	10/17/96	8	10	SB	x								
NK-SB-211	1019328	10/17/96	10	12	SB	x								
NK-SB-212	1019329	10/17/96	0	2	SB	x								
NK-SB-212	1019330	10/17/96	2	4	SB	x								
NK-SB-212	1019331	10/17/96	4	6	SB	x								
NK-SB-212	1019332	10/17/96	6	8	SB	x								
NK-SB-212	1019333	10/17/96	8	10	SB	x								
NK-SB-212	1019334	10/17/96	10	12	SB	x								
NK-SB-213	1019335	10/17/96	0	2	SB	x								

Notes: 1. Legend: X - Analysed; at least one analyte over the detection limit; x - Analysed, no analytes in group over the detection limit

2. Printed on 07/22/99



**Table 1**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

DRAFT

Page 2 of 2

Notes: 1. Legend: X - Analysed; at least one analyte over the detection limit; x - Analysed, no analytes in group over the detection limit

2. Printed on 07/22/99



Table 2

DRAFT

**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - SOIL  
P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

Page 1 of 1

Notes: 1. Only Detects Shown  
2. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 1 of 18

	Location ID	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12
Sample ID	1015488	1015489	1015489	1015489	1015490	1015491	1015491	1015491
Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
Sample Time	12:05	12:15	12:15	12:15	12:20	12:30	12:30	12:30
Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	6' - 8'
Laboratory	LEA	AEL	AEL	LEA	LEA	AEL	AEL	LEA
Lab. Number	96-3164-129	AEL96007302	AEL96010878	96-3165-004	96-3166-005	AEL96007305	96-3163-128	
Constituent	Units							
Date Metals Analyzed	-		07/10/1996				07/10/1996	
Date Organics Analyzed	-	07/01/1996	07/08/1996		07/02/1996	07/02/1996	07/08/1996	07/01/1996
Date Physical Analyzed	-		07/18/1996				07/18/1996	
Date of Metals SPLP Analysis	-			10/17/1996				
Arsenic	mg/kg		<1.12				<1.23	
Arsenic (SPLP)	mg/L			<0.010				
Barium	mg/kg		14.4				22	
Barium (SPLP)	mg/L			<1.00				
Cadmium	mg/kg		<3.35				<3.69	
Cadmium (SPLP)	mg/L			<0.0010				
Chromium	mg/kg		5.6				<6.15	
Chromium (SPLP)	mg/L			<0.050				
Lead	mg/kg		<22.3				<24.6	
Lead (SPLP)	mg/L			<0.0050				
Mercury	mg/kg		<0.223				<0.246	
Mercury (SPLP)	mg/L			<0.0020				
Nickel	mg/kg		<11.2				<12.3	
Nickel (SPLP)	mg/L			<0.10				
Selenium	mg/kg		<1.12				<1.23	
Selenium (SPLP)	mg/L			<0.010				
Silver	mg/kg		<5.58				<6.4	
Silver (SPLP)	mg/L			<0.020				
Zinc	mg/kg		20.2				14.8	
Zinc (SPLP)	mg/L			<0.050				
Total Petroleum Hydrocarbons	mg/kg		<38.5				<41.5	
Acetone	µg/kg		<37				<25	
Acrolein	µg/kg		<19				<12	
Acrylonitrile	µg/kg		<19				<12	

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 2 of 18

	Location ID	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12
Sample ID	1015488	1015489	1015489	1015489	1015490	1015491	1015491	1015491
Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
Sample Time	12:05	12:15	12:15	12:15	12:20	12:30	12:30	12:30
Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	6' - 8'
Laboratory	LEA	AEL	AEL	LEA	LEA	AEL	AEL	LEA
Lab. Number	96-3164-129	AEL96007302	AEL96010878	96-3165-004	96-3166-005	AEL96007305	96-3163-128	
Constituent	Units							
Benzene	µg/kg		<7.4				<4.9	
Benzene (screening)	µg/kg	<15			<13	<15		<15
Bromobenzene	µg/kg		<7.4				<4.9	
Bromoform	µg/kg		<7.4				<4.9	
Carbon Disulfide	µg/kg		<7.4				<4.9	
Carbon Tetrachloride	µg/kg		<7.4				<4.9	
Chlorobenzene	µg/kg		<7.4				<4.9	
Chlorodibromomethane	µg/kg		<7.4				<4.9	
Chloroethane	µg/kg		<7.4				<4.9	
Chloroethyl Vinyl Ether,2-	µg/kg		<7.4				<4.9	
Chloroform	µg/kg		<7.4				<4.9	
Chlorotoluene,o-	µg/kg		<7.4				<4.9	
Chlorotoluene,p-	µg/kg		<7.4				<4.9	
Dibromomethane	µg/kg		<7.4				<4.9	
Dichlorobenzene,1,2-	µg/kg		<7.4				<4.9	
Dichlorobenzene,1,3-	µg/kg		<7.4				<4.9	
Dichlorobenzene,1,4-	µg/kg		<7.4				<4.9	
Dichlorobromomethane	µg/kg		<7.4				<4.9	
Dichlorodifluoromethane	µg/kg		<7.4				<4.9	
Dichloroethane,1,1-	µg/kg		<7.4				<4.9	
Dichloroethane,1,2-	µg/kg		<7.4				<4.9	
Dichloroethylene,1,1-	µg/kg		<7.4				<4.9	
Dichloroethylene,1,2-cis-	µg/kg		<7.4				<4.9	
Dichloroethylene,1,2-trans-	µg/kg		<7.4				<4.9	
Dichloropropane,1,2-	µg/kg		<7.4				<4.9	
Dichloropropylene,1,3-cis-	µg/kg		<7.4				<4.9	
Dichloropropylene,1,3-trans-	µg/kg		<7.4				<4.9	
Ethylbenzene	µg/kg		<7.4				<4.9	

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 3 of 18

	Location ID	NK-SB-12						
	Sample ID	1015488	1015489	1015489	1015489	1015490	1015491	1015491
	Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
	Sample Time	12:05	12:15	12:15	12:15	12:20	12:30	12:30
	Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'
	Laboratory	LEA	AEL	AEL	LEA	LEA	AEL	LEA
	Lab. Number	96-3164-129	AEL96007302	AEL96010878	96-3165-004	96-3166-005	AEL96007305	96-3163-128
Constituent	Units							
Ethylbenzene (screening)	µg/kg	<22						<22
Hexanone,2-	µg/kg		<19					<12
Methyl Bromide	µg/kg		<7.4					<4.9
Methyl Chloride	µg/kg		<7.4					<4.9
Methyl Ethyl Ketone	µg/kg		<19					<12
Methyl-2-pentanone,4-	µg/kg		<19					<12
Methyl-tert-butyl Ether	µg/kg		<7.4					<4.9
Methylene Chloride	µg/kg		<7.4					<4.9
Styrene	µg/kg		<7.4					<4.9
Tetrachloroethane,1,1,1,2-	µg/kg		<7.4					<4.9
Tetrachloroethane,1,1,2,2-	µg/kg		<7.4					<4.9
Tetrachloroethylene	µg/kg		<7.4					<4.9
Tetrachloroethylene (screening)	µg/kg	<23			<20	<23		<23
Toluene	µg/kg		<7.4					<4.9
Toluene (screening)	µg/kg	<22			<19	<21		<22
Trichloroethane,1,1,1-	µg/kg		<7.4					<4.9
Trichloroethane,1,1,1- (screening)	µg/kg	<375			<325	<361		<375
Trichloroethane,1,1,2-	µg/kg		<7.4					<4.9
Trichloroethylene	µg/kg		<7.4					<4.9
Trichloroethylene (screening)	µg/kg	<36			<32	<35		<36
Trichloromonofluoromethane	µg/kg		<7.4					<4.9
Trichloropropane,1,2,3-	µg/kg		<7.4					<4.9
Vinyl Acetate	µg/kg		<7.4					<4.9
Vinyl Chloride	µg/kg		<7.4					<4.9
Xylenes (Total)	µg/kg		<7.4					<4.9
Xylenes (Total) (screening)	µg/kg	<47						<47

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 4 of 18

	Location ID	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-13	NK-SB-13	NK-SB-13
Sample ID	1015492	1015493	1015494	1015495	1015496	1015497	1015497	1015497
Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
Sample Time	12:32	12:35	12:51	12:59	13:20	13:30	13:30	13:30
Sample Depth	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'	2' - 4'	2' - 4'
Laboratory	LEA	LEA	LEA	LEA	LEA	AEL	AEL	AEL
Lab. Number	96-3169-008	96-3170-009	96-3171-010	96-3173-012	96-3174-013	AEL96007303	AEL96010879	
Constituent	Units							
Date Metals Analyzed	-					07/10/1996		
Date Organics Analyzed	-	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/08/1996		
Date Physical Analyzed	-					07/18/1996		
Date of Metals SPLP Analysis	-							10/04/1996
Arsenic	mg/kg					1.21		
Arsenic (SPLP)	mg/L						<0.010	
Barium	mg/kg					8.03		
Barium (SPLP)	mg/L						<1.00	
Cadmium	mg/kg					<3.38		
Cadmium (SPLP)	mg/L						<0.0010	
Chromium	mg/kg					18.1		
Chromium (SPLP)	mg/L						<0.050	
Lead	mg/kg					<22.6		
Lead (SPLP)	mg/L						<0.0050	
Mercury	mg/kg					<0.226		
Mercury (SPLP)	mg/L						<0.0020	
Nickel	mg/kg					17.2		
Nickel (SPLP)	mg/L						<0.10	
Selenium	mg/kg					<1.13		
Selenium (SPLP)	mg/L						<0.010	
Silver	mg/kg					<5.64		
Silver (SPLP)	mg/L						<0.020	
Zinc	mg/kg					27.4		
Zinc (SPLP)	mg/L						<0.050	
Total Petroleum Hydrocarbons	mg/kg					<38.1		
Acetone	µg/kg					<31		
Acrolein	µg/kg					<15		
Acrylonitrile	µg/kg					<15		

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 5 of 18

	Location ID	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-13	NK-SB-13	NK-SB-13
	Sample ID	1015492	1015493	1015494	1015495	1015496	1015497	1015497
	Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
	Sample Time	12:32	12:35	12:51	12:59	13:20	13:30	13:30
	Sample Depth	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'	2' - 4'
	Laboratory	LEA	LEA	LEA	LEA	LEA	AEL	AEL
	Lab. Number	96-3169-008	96-3170-009	96-3171-010	96-3173-012	96-3174-013	AEL96007303	AEL96010879
Constituent	Units							
Benzene	µg/kg						<6.2	
Benzene (screening)	µg/kg	<14	<13	<16	<13	<14		
Bromobenzene	µg/kg						<6.2	
Bromoform	µg/kg						<6.2	
Carbon Disulfide	µg/kg						<6.2	
Carbon Tetrachloride	µg/kg						<6.2	
Chlorobenzene	µg/kg						<6.2	
Chlorodibromomethane	µg/kg						<6.2	
Chloroethane	µg/kg						<6.2	
Chloroethyl Vinyl Ether, 2-	µg/kg						<6.2	
Chloroform	µg/kg						<6.2	
Chlorotoluene, o-	µg/kg						<6.2	
Chlorotoluene, p-	µg/kg						<6.2	
Dibromomethane	µg/kg						<6.2	
Dichlorobenzene, 1,2-	µg/kg						<6.2	
Dichlorobenzene, 1,3-	µg/kg						<6.2	
Dichlorobenzene, 1,4-	µg/kg						<6.2	
Dichlorobromomethane	µg/kg						<6.2	
Dichlorodifluoromethane	µg/kg						<6.2	
Dichloroethane, 1,1-	µg/kg						<6.2	
Dichloroethane, 1,2-	µg/kg						<6.2	
Dichloroethylene, 1,1-	µg/kg						<6.2	
Dichloroethylene, 1,2-cis-	µg/kg						<6.2	
Dichloroethylene, 1,2-trans-	µg/kg						<6.2	
Dichloropropane, 1,2-	µg/kg						<6.2	
Dichloropropylene, 1,3-cis-	µg/kg						<6.2	
Dichloropropylene, 1,3-trans-	µg/kg						<6.2	
Ethylbenzene	µg/kg						<6.2	

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 6 of 18

	Location ID	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-12	NK-SB-13	NK-SB-13	NK-SB-13
Sample ID	1015492	1015493	1015494	1015495	1015496	1015497	1015497	1015497
Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
Sample Time	12:32	12:35	12:51	12:59	13:20	13:30		13:30
Sample Depth	8' ~ 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'		2' - 4'
Laboratory	LEA	LEA	LEA	LEA	LEA	AEL		AEL
Lab. Number	96-3169-008	96-3170-009	96-3171-010	96-3173-012	96-3174-013	AEL96007303		AEL96010879
Constituent	Units							
Ethylbenzene (screening)	µg/kg							
Hexanone,2-	µg/kg					<15		
Methyl Bromide	µg/kg					<6.2		
Methyl Chloride	µg/kg					<6.2		
Methyl Ethyl Ketone	µg/kg					<15		
Methyl-2-pentanone,4-	µg/kg					<15		
Methyl-tert-butyl Ether	µg/kg					<6.2		
Methylene Chloride	µg/kg					<6.2		
Styrene	µg/kg					<6.2		
Tetrachloroethane,1,1,1,2-	µg/kg					<6.2		
Tetrachloroethane,1,1,2,2-	µg/kg					<6.2		
Tetrachloroethylene	µg/kg					<6.2		
Tetrachloroethylene (screening)	µg/kg	<21	<20	<24	<19	<21		
Toluene	µg/kg						<6.2	
Toluene (screening)	µg/kg	<20	<19	<22	<18	<20		
Trichloroethane,1,1,1-	µg/kg						<6.2	
Trichloroethane,1,1,1- (screening)	µg/kg	<342	<325	<382	<310	<342		
Trichloroethane,1,1,2-	µg/kg						<6.2	
Trichloroethylene	µg/kg						<6.2	
Trichloroethylene (screening)	µg/kg	<33	<32	<37	<30	<33		
Trichloromonofluoromethane	µg/kg						<6.2	
Trichloropropane,1,2,3-	µg/kg						<6.2	
Vinyl Acetate	µg/kg						<6.2	
Vinyl Chloride	µg/kg						<6.2	
Xylenes (Total)	µg/kg						<6.2	
Xylenes (Total) (screening)	µg/kg							

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 7 of 18

	Location ID	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13
Sample ID	1015497	1015498	1015499	1015500	1015501	1015501	1015501	1015502
Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
Sample Time	13:30	13:50	14:00	14:02	14:07	14:07	14:07	14:40
Sample Depth	2' - 4'	4' - 6'	6' - 8'	8' - 10'	10' - 12'	10' - 12'	12' - 14'	
Laboratory	LEA	LEA	LEA	LEA	AEL	LEA	LEA	
Lab. Number	96-3175-014	96-3176-015	96-3177-016	96-3178-017	AEL96007306	96-3179-018	96-3180-019	
Constituent	Units							
Date Metals Analyzed	-					07/10/1996		
Date Organics Analyzed	-	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/08/1996	07/02/1996	07/02/1996
Date Physical Analyzed	-					07/18/1996		
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg					6.9		
Arsenic (SPLP)	mg/L							
Barium	mg/kg					254		
Barium (SPLP)	mg/L							
Cadmium	mg/kg					<4.82		
Cadmium (SPLP)	mg/L							
Chromium	mg/kg					48.2		
Chromium (SPLP)	mg/L							
Lead	mg/kg					<32.1		
Lead (SPLP)	mg/L							
Mercury	mg/kg					<0.321		
Mercury (SPLP)	mg/L							
Nickel	mg/kg					43.4		
Nickel (SPLP)	mg/L							
Selenium	mg/kg					<1.61		
Selenium (SPLP)	mg/L							
Silver	mg/kg					<8.04		
Silver (SPLP)	mg/L							
Zinc	mg/kg					106		
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg					<79.9		
Acetone	µg/kg					<120		
Acrolein	µg/kg					<61		
Acrylonitrile	µg/kg					<61		

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 8 of 18

	Location ID	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13
Sample ID	1015497	1015498	1015499	1015500	1015501	1015501	1015501	1015502
Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
Sample Time	13:30	13:50	14:00	14:02	14:07	14:07	14:07	14:40
Sample Depth	2' - 4'	4' - 6'	6' - 8'	8' - 10'	10' - 12'	10' - 12'	12' - 14'	
Laboratory	LEA	LEA	LEA	LEA	AEL	LEA	LEA	
Lab. Number	96-3175-014	96-3176-015	96-3177-016	96-3178-017	AEL96007306	96-3179-018	96-3180-019	
Constituent	Units							
Benzene	µg/kg				<24			
Benzene (screening)	µg/kg	<14	<16	<15	<15		<14	<14
Bromobenzene	µg/kg					<24		
Bromoform	µg/kg					<24		
Carbon Disulfide	µg/kg					<24		
Carbon Tetrachloride	µg/kg					<24		
Chlorobenzene	µg/kg					<24		
Chlorodibromomethane	µg/kg					<24		
Chloroethane	µg/kg					<24		
Chloroethyl Vinyl Ether, 2-	µg/kg					<24		
Chloroform	µg/kg					<24		
Chlorotoluene, o-	µg/kg					<24		
Chlorotoluene, p-	µg/kg					<24		
Dibromomethane	µg/kg					<24		
Dichlorobenzene, 1,2-	µg/kg					<24		
Dichlorobenzene, 1,3-	µg/kg					<24		
Dichlorobenzene, 1,4-	µg/kg					<24		
Dichlorobromomethane	µg/kg					<24		
Dichlorodifluoromethane	µg/kg					<24		
Dichloroethane, 1,1-	µg/kg					<24		
Dichloroethane, 1,2-	µg/kg					<24		
Dichloroethylene, 1,1-	µg/kg					<24		
Dichloroethylene, 1,2-cis-	µg/kg					<24		
Dichloroethylene, 1,2-trans-	µg/kg					<24		
Dichloropropane, 1,2-	µg/kg					<24		
Dichloropropylene, 1,3-cis-	µg/kg					<24		
Dichloropropylene, 1,3-trans-	µg/kg					<24		
Ethylbenzene	µg/kg					<24		

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 9 of 18

	Location ID	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13	NK-SB-13
Sample ID	1015497	1015498	1015499	1015500	1015501	1015501	1015501	1015502
Sample Date	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996	06/28/1996
Sample Time	13:30	13:50	14:00	14:02	14:07	14:07	14:07	14:40
Sample Depth	2' - 4'	4' - 6'	6' - 8'	8' - 10'	10' - 12'	10' - 12'	12' - 14'	
Laboratory	LEA	LEA	LEA	LEA	AEL	LEA	LEA	
Lab. Number	96-3175-014	96-3176-015	96-3177-016	96-3178-017	AEL96007306	96-3179-018	96-3180-019	
Constituent	Units							
Ethylbenzene (screening)	µg/kg							
Hexanone,2-	µg/kg				<61			
Methyl Bromide	µg/kg				<24			
Methyl Chloride	µg/kg				<24			
Methyl Ethyl Ketone	µg/kg				<61			
Methyl-2-pentanone,4-	µg/kg				<61			
Methyl-tert-butyl Ether	µg/kg				<24			
Methylene Chloride	µg/kg				<24			
Styrene	µg/kg				<24			
Tetrachloroethane,1,1,1,2-	µg/kg				<24			
Tetrachloroethane,1,1,2,2-	µg/kg				<24			
Tetrachloroethylene	µg/kg				<24			
Tetrachloroethylene (screening)	µg/kg	<21	<24	<23	<23		<21	<21
Toluene	µg/kg					<24		
Toluene (screening)	µg/kg	<19	<22	<21	<21		<19	<19
Trichloroethane,1,1,1-	µg/kg					<24		
Trichloroethane,1,1,1- (screening)	µg/kg	<336	<382	<368	<361		<331	<331
Trichloroethane,1,1,2-	µg/kg					<24		
Trichloroethylene	µg/kg					<24		
Trichloroethylene (screening)	µg/kg	<33	<37	<36	<35		<32	<32
Trichloromonofluoromethane	µg/kg					<24		
Trichloropropane,1,2,3-	µg/kg					<24		
Vinyl Acetate	µg/kg					<24		
Vinyl Chloride	µg/kg					<24		
Xylenes (Total)	µg/kg					<24		
Xylenes (Total) (screening)	µg/kg							

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 10 of 18

	Location ID	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211
Sample ID	1019322	1019323	1019323	1019324	1019325	1019326	1019327	
Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
Sample Time	10:30	10:40	10:40	10:50	11:00	11:10	11:20	
Sample Depth	0' - 2'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	
Laboratory	LEA	AEL	LEA	LEA	LEA	LEA	LEA	
Lab. Number	96-5238-077	AEL97001947	96-5239-078	96-5240-079	96-5241-080	96-5242-081	96-5245-085	
Constituent	Units							
Date Metals Analyzed	-		02/18/1997					
Date Organics Analyzed	-	10/18/1996		10/18/1996	10/18/1996	10/18/1996	10/18/1996	10/21/1996
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg		<5.81					
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg							
Acetone	µg/kg							
Acrolein	µg/kg							
Acrylonitrile	µg/kg							

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 11 of 18

	Location ID	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211
Sample ID	1019322	1019323	1019323	1019324	1019325	1019326	1019326	1019327
Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
Sample Time	10:30	10:40	10:40	10:50	11:00	11:10	11:20	
Sample Depth	0' - 2'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	
Laboratory	LEA	AEL	LEA	LEA	LEA	LEA	LEA	LEA
Lab. Number	96-5238-077	AEL97001947	96-5239-078	96-5240-079	96-5241-080	96-5242-081	96-5245-085	
Constituent	Units							
Benzene	µg/kg							
Benzene (screening)	µg/kg	<6		<7	<7	<7	<7	<8 nc
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether,2-	µg/kg							
Chloroform	µg/kg							
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene,1,2-	µg/kg							
Dichlorobenzene,1,3-	µg/kg							
Dichlorobenzene,1,4-	µg/kg							
Dichlorobromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane,1,1-	µg/kg							
Dichloroethane,1,2-	µg/kg							
Dichloroethylene,1,1-	µg/kg							
Dichloroethylene,1,2-cis-	µg/kg							
Dichloroethylene,1,2-trans-	µg/kg							
Dichloropropane,1,2-	µg/kg							
Dichloropropylene,1,3-cis-	µg/kg							
Dichloropropylene,1,3-trans-	µg/kg							
Ethylbenzene	µg/kg							

Notes: 1. Printed on 07/22/99

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 12 of 18

	Location ID	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211	NK-SB-211
Sample ID	1019322	1019323	1019323	1019324	1019325	1019326	1019327	
Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
Sample Time	10:30	10:40	10:40	10:50	11:00	11:10	11:20	
Sample Depth	0' - 2'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	
Laboratory	LEA	AEL	LEA	LEA	LEA	LEA	LEA	
Lab. Number	96-5238-077	AEL97001947	96-5239-078	96-5240-079	96-5241-080	96-5242-081	96-5245-085	
Constituent	Units							
Ethylbenzene (screening)	µg/kg	<13		<16	<16	<15	<14	<18 nc
Hexanone,2-	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl-2-pentanone,4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Styrene	µg/kg							
Tetrachloroethane,1,1,1,2-	µg/kg							
Tetrachloroethane,1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							
Tetrachloroethylene (screening)	µg/kg	<16		<20	<20	<19	<18	<22 nc
Toluene	µg/kg							
Toluene (screening)	µg/kg	<9		<11	<11	<10	<10	<13 nc
Trichloroethane,1,1,1-	µg/kg							
Trichloroethane,1,1,1- (screening)	µg/kg	<163		<195	<199	<185	<179	<224 nc
Trichloroethane,1,1,2-	µg/kg							
Trichloroethylene	µg/kg							
Trichloroethylene (screening)	µg/kg	<16		<19	<20	<18	<18	<22 nc
Trichloromonofluoromethane	µg/kg							
Trichloropropane,1,2,3-	µg/kg							
Vinyl Acetate	µg/kg							
Vinyl Chloride	µg/kg							
Xylenes (Total)	µg/kg							
Xylenes (Total) (screening)	µg/kg							

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 13 of 18

	Location ID	NK-SB-211	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212
Sample ID	1019328	1019329	1019330	1019331	1019332	1019333	1019334	1019334
Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
Sample Time	11:30	12:45	12:55	13:05	13:15	13:25	13:35	
Sample Depth	10' - 12'	0' - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	10' - 12'	
Laboratory	LEA	LEA						
Lab. Number	96-5246-086	96-5247-087	96-5248-088	96-5249-089	96-5250-090	96-5251-091	96-5252-092	
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-	10/21/1996	10/21/1996	10/21/1996	10/21/1996	10/21/1996	10/21/1996	10/21/1996
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg							
Acetone	µg/kg							
Acrolein	µg/kg							
Acrylonitrile	µg/kg							

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 14 of 18

	Location ID	NK-SB-211	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212
Sample ID	1019328	1019329	1019330	1019331	1019332	1019333	1019334	
Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
Sample Time	11:30	12:45	12:55	13:05	13:15	13:25	13:35	
Sample Depth	10' - 12'	0' - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	10' - 12'	
Laboratory	LEA	LEA						
Lab. Number	96-5246-086	96-5247-087	96-5248-088	96-5249-089	96-5250-090	96-5251-091	96-5252-092	
Constituent	Units							
Benzene	µg/kg							
Benzene (screening)	µg/kg	<7	<8 nc	<7	<8	<7	<6 nc	<8
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether,2-	µg/kg							
Chloroform	µg/kg							
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene,1,2-	µg/kg							
Dichlorobenzene,1,3-	µg/kg							
Dichlorobenzene,1,4-	µg/kg							
Dichlorobromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane,1,1-	µg/kg							
Dichloroethane,1,2-	µg/kg							
Dichloroethylene,1,1-	µg/kg							
Dichloroethylene,1,2-cis-	µg/kg							
Dichloroethylene,1,2-trans-	µg/kg							
Dichloropropane,1,2-	µg/kg							
Dichloropropylene,1,3-cis-	µg/kg							
Dichloropropylene,1,3-trans-	µg/kg							
Ethylbenzene	µg/kg							

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 15 of 18

	Location ID	NK-SB-211	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212	NK-SB-212
Sample ID	1019328	1019329	1019330	1019331	1019332	1019333	1019334	
Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
Sample Time	11:30	12:45	12:55	13:05	13:15	13:25		13:35
Sample Depth	10' - 12'	0' - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'		10' - 12'
Laboratory	LEA	LEA						
Lab. Number	96-5246-086	96-5247-087	96-5248-088	96-5249-089	96-5250-090	96-5251-091	96-5252-092	
Constituent	Units							
Ethylbenzene (screening)	µg/kg	<15	<17 nc	<15	<16	<16	<12 nc	<17
Hexanone,2-	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl-2-pentanone,4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Styrene	µg/kg							
Tetrachloroethane,1,1,1,2-	µg/kg							
Tetrachloroethane,1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							
Tetrachloroethylene (screening)	µg/kg	<19	<22 nc	<19	<20	<20	<15 nc	<22
Toluene	µg/kg							
Toluene (screening)	µg/kg	<11	<12 nc	<10	<11	<11	<8 nc	<12
Trichloroethane,1,1,1-	µg/kg							
Trichloroethane,1,1,1- (screening)	µg/kg	<188	<219 nc	<185	<203	<199	<151 nc	<215
Trichloroethane,1,1,2-	µg/kg							
Trichloroethylene	µg/kg							
Trichloroethylene (screening)	µg/kg	<19	<22 nc	<18	<20	<20	<15 nc	<21
Trichloromonofluoromethane	µg/kg							
Trichloropropane,1,2,3-	µg/kg							
Vinyl Acetate	µg/kg							
Vinyl Chloride	µg/kg							
Xylenes (Total)	µg/kg							
Xylenes (Total) (screening)	µg/kg							

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 16 of 18

	Location ID	NK-SB-213	NK-SB-213	NK-SB-213	NK-SB-213	NK-SB-213	NK-SB-213	NK-SB-213
Sample ID	1019335	1019336	1019337	1019338	1019338	1019339	1019340	
Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
Sample Time	14:20	14:30	14:40	14:50	14:50	15:00	15:10	
Sample Depth	0' - 2'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'	
Laboratory	LEA	LEA	LEA	AEL	LEA	LEA	LEA	
Lab. Number	96-5253-093	96-5255-097	96-5256-098	AEL96012050	96-5257-099	96-5260-102	96-5261-103	
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-	10/21/1996	10/21/1996	10/21/1996	10/28/1996	10/21/1996	10/21/1996	10/21/1996
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg				<29			
Acetone	µg/kg							
Acrolein	µg/kg				<14			
Acrylonitrile	µg/kg				<14			

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 17 of 18

	Location ID	NK-SB-213						
	Sample ID	1019335	1019336	1019337	1019338	1019338	1019339	1019340
	Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
	Sample Time	14:20	14:30	14:40	14:50	14:50	15:00	15:10
	Sample Depth	0' - 2'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'
	Laboratory	LEA	LEA	LEA	AEL	LEA	LEA	LEA
	Lab. Number	96-5253-093	96-5255-097	96-5256-098	AEL96012050	96-5257-099	96-5260-102	96-5261-103
Constituent	Units							
Benzene	µg/kg				<5.7			
Benzene (screening)	µg/kg	<8	<8	<8		<7	<7	<7
Bromobenzene	µg/kg				<5.7			
Bromoform	µg/kg				<5.7			
Carbon Disulfide	µg/kg				<5.7			
Carbon Tetrachloride	µg/kg				<5.7			
Chlorobenzene	µg/kg				<5.7			
Chlorodibromomethane	µg/kg				<5.7			
Chloroethane	µg/kg				<5.7			
Chloroethyl Vinyl Ether,2-	µg/kg				<5.7			
Chloroform	µg/kg				<5.7			
Chlorotoluene,o-	µg/kg				<5.7			
Chlorotoluene,p-	µg/kg				<5.7			
Dibromomethane	µg/kg				<5.7			
Dichlorobenzene,1,2-	µg/kg				<5.7			
Dichlorobenzene,1,3-	µg/kg				<5.7			
Dichlorobenzene,1,4-	µg/kg				<5.7			
Dichlorobromomethane	µg/kg				<5.7			
Dichlorodifluoromethane	µg/kg				<5.7			
Dichloroethane,1,1-	µg/kg				<5.7			
Dichloroethane,1,2-	µg/kg				<5.7			
Dichloroethylene,1,1-	µg/kg				<5.7			
Dichloroethylene,1,2-cis-	µg/kg				<5.7			
Dichloroethylene,1,2-trans-	µg/kg				<5.7			
Dichloropropane,1,2-	µg/kg				<5.7			
Dichloropropylene,1,3-cis-	µg/kg				<5.7			
Dichloropropylene,1,3-trans-	µg/kg				<5.7			
Ethylbenzene	µg/kg				<5.7			

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 18 of 18

	Location ID	NK-SB-213						
	Sample ID	1019335	1019336	1019337	1019338	1019338	1019339	1019340
	Sample Date	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996	10/17/1996
	Sample Time	14:20	14:30	14:40	14:50	14:50	15:00	15:10
	Sample Depth	0' - 2'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'
	Laboratory	LEA	LEA	LEA	AEL	LEA	LEA	LEA
	Lab. Number	96-5253-093	96-5255-097	96-5256-098	AEL96012050	96-5257-099	96-5260-102	96-5261-103
Constituent	Units							
Ethylbenzene (screening)	µg/kg	<17	<17	<17		<14	<15	<14
Hexanone,2-	µg/kg				<14			
Methyl Bromide	µg/kg				<5.7			
Methyl Chloride	µg/kg				<5.7			
Methyl Ethyl Ketone	µg/kg				<14			
Methyl-2-pentanone,4-	µg/kg				<14			
Methyl-tert-butyl Ether	µg/kg				<5.7			
Methylene Chloride	µg/kg				<13			
Styrene	µg/kg				<5.7			
Tetrachloroethane,1,1,1,2-	µg/kg				<5.7			
Tetrachloroethane,1,1,2,2-	µg/kg				<5.7			
Tetrachloroethylene	µg/kg				<5.7			
Tetrachloroethylene (screening)	µg/kg	<22	<21	<22		<18	<19	<18
Toluene	µg/kg				<5.7			
Toluene (screening)	µg/kg	<12	<12	<12		<10	<11	<10
Trichloroethane,1,1,1-	µg/kg				<5.7			
Trichloroethane,1,1,1- (screening)	µg/kg	<215	<211	<215		<179	<188	<176
Trichloroethane,1,1,2-	µg/kg				<5.7			
Trichloroethylene	µg/kg				<5.7			
Trichloroethylene (screening)	µg/kg	<21	<21	<21		<18	<19	<17
Trichloromonofluoromethane	µg/kg				<5.7			
Trichloropropane,1,2,3-	µg/kg				<5.7			
Vinyl Acetate	µg/kg				<5.7			
Vinyl Chloride	µg/kg				<5.7			
Xylenes (Total)	µg/kg				<5.7			
Xylenes (Total) (screening)	µg/kg						<30	<28

Notes: 1. Printed on 07/22/99



**Table 4**

DRAFT

**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

Page 1 of 1

Notes: 1. Only Detects Shown  
2. Printed on 07/22/99



**Table 5**  
**SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

Page 1 of 3

	Location ID	NK-SB-12	NK-SB-13					
	Sample ID	1015676	1015675					
	Sample Date	07/03/1996	07/03/1996					
	Sample Time	12:05	15:20					
	Sample Depth	5' - 7'	5' - 7'					
	Laboratory	AEL	AEL					
	Lab. Number	AEL96007381	AEL96007380					
Constituent	Units							
Date Metals Analyzed	-	07/17/1996	07/17/1996					
Date Organics Analyzed	-	07/10/1996	07/10/1996					
Date Physical Analyzed	-	07/16/1996	07/16/1996					
Arsenic	mg/L	<0.010	<0.010					
Barium	mg/L	0.019	0.014					
Cadmium	mg/L	<0.0010	<0.0010					
Chromium	mg/L	<0.010	<0.010					
Lead	mg/L	<0.0050	<0.0050					
Mercury	mg/L	<0.0010	<0.0010					
Nickel	mg/L	<0.020	<0.020					
Selenium	mg/L	<0.010	<0.010					
Silver	mg/L	<0.010	<0.010					
Zinc	mg/L	0.018	0.042					
Total Petroleum Hydrocarbons	mg/L	<1.0	<1.0					
Acetone	µg/L	<25	<40					
Acrolein	µg/L	<10	<10					
Acrylonitrile	µg/L	<10	<10					
Benzene	µg/L	<4.0	<4.0					
Bromobenzene	µg/L	<4.0	<4.0					
Bromoform	µg/L	<4.0	<4.0					
Carbon Disulfide	µg/L	<4.0	<4.0					
Carbon Tetrachloride	µg/L	<4.0	<4.0					
Chlorobenzene	µg/L	<4.0	<4.0					
Chlorodibromomethane	µg/L	<4.0	<4.0					
Chloroethane	µg/L	<4.0	<4.0					
Chloroethyl Vinyl Ether,2-	µg/L	<4.0	<4.0					
Chloroform	µg/L	<4.0	<4.0					
Chlorotoluene,o-	µg/L	<4.0	<4.0					

Notes: 1. Printed on 07/22/99



**Table 5**  
**SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

**DRAFT**

Page 2 of 3

	Location ID	NK-SB-12	NK-SB-13						
	Sample ID	1015676	1015675						
	Sample Date	07/03/1996	07/03/1996						
	Sample Time	12:05	15:20						
	Sample Depth	5' - 7'	5' - 7'						
	Laboratory	AEL	AEL						
	Lab. Number	AEL96007381	AEL96007380						
Constituent	Units								
Chlorotoluene,p-	µg/L	<4.0	<4.0						
Dibromomethane	µg/L	<4.0	<4.0						
Dichlorobenzene,1,2-	µg/L	<4.0	<4.0						
Dichlorobenzene,1,3-	µg/L	<4.0	<4.0						
Dichlorobenzene,1,4-	µg/L	<4.0	<4.0						
Dichlorobromomethane	µg/L	<4.0	<4.0						
Dichlorodifluoromethane	µg/L	<4.0	<4.0						
Dichloroethane,1,1-	µg/L	<4.0	<4.0						
Dichloroethane,1,2-	µg/L	<4.0	<4.0						
Dichloroethylene,1,1-	µg/L	<4.0	<4.0						
Dichloroethylene,1,2-cis-	µg/L	<4.0	<4.0						
Dichloroethylene,1,2-trans-	µg/L	<4.0	<4.0						
Dichloropropane,1,2-	µg/L	<4.0	<4.0						
Dichloropropylene,1,3-cis-	µg/L	<4.0	<4.0						
Dichloropropylene,1,3-trans-	µg/L	<4.0	<4.0						
Ethylbenzene	µg/L	<4.0	<4.0						
Hexanone,2-	µg/L	<10	<10						
Methyl Bromide	µg/L	<4.0	<4.0						
Methyl Chloride	µg/L	<4.0	<4.0						
Methyl Ethyl Ketone	µg/L	<10	<10						
Methyl-2-pentanone,4-	µg/L	<10	<10						
Methyl-tert-butyl Ether	µg/L	<4.0	<4.0						
Methylene Chloride	µg/L	<4.0	<4.0						
Styrene	µg/L	<4.0	<4.0						
Tetrachloroethane,1,1,1,2-	µg/L	<4.0	<4.0						
Tetrachloroethane,1,1,2,2-	µg/L	<4.0	<4.0						
Tetrachloroethylene	µg/L	<4.0	<4.0						
Toluene	µg/L	<4.0	<4.0						

Notes: 1. Printed on 07/22/99

**Table 5**

DRAFT

## **SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**

**P&W East Hartford: Explosives Storage Area - Explosives Storage Building**

Page 3 of 3

Notes: 1. Printed on 07/22/99



**DRAWINGS**

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID # 2669**

**Facility Name: PRATT & WHITNEY - MAIN STREET**

**Facility ID#: CTD990672081**

**Phase Classification: R-5**

**Purpose of Target Sheet:**

**Oversized (in Site File)**       **Oversized (in Map Drawer)**

**Page(s) Missing (Please Specify Below)**

**Privileged**       **Other (Provide Purpose Below)**

**Description of Oversized Material, if applicable:**

**DRAWING 2: GROUNDWATER INVESTIGATIONS,  
EXPLOSIVE STORAGE BUILDING, LOCATIONS AND  
CONSTITUENTS MAP**

**Map**     **Photograph**     **Other (Specify Below)**

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID # 2669**

**Facility Name: PRATT & WHITNEY - MAIN STREET**

**Facility ID#: CTD990672081**

**Phase Classification: R-5**

**Purpose of Target Sheet:**

**Oversized (in Site File)**       **Oversized (in Map Drawer)**

**Page(s) Missing (Please Specify Below)**

**Privileged**       **Other (Provide Purpose Below)**

**Description of Oversized Material, if applicable:**

**DRAWING 1: SOIL INVESTIGATIONS, EXPLOSIVE  
STORAGE BUILDING, LOCATIONS AND  
CONSTITUENTS MAP**

**Map**     **Photograph**     **Other (Specify Below)**



Loureiro Engineering Associates, Inc.

August 3, 1999

**US Environmental Protection Agency**  
JFK Federal Building (HBT)  
1 Congress Street  
Boston, MA 02114-2023

Attn.: Juan Perez

**RE: Summary Investigation and Remediation Report - Airport/Klondike Area**  
**Pratt & Whitney, East Hartford, Connecticut**  
**LEA Comm. No. 68VG311**

Dear Mr. Perez:

Attached please find four copies of additional information for the above-mentioned report for the Airport/Klondike Area at the Pratt & Whitney facility located at 400 Main Street in East Hartford, Connecticut. The information provided in this package includes the following:

- Explosive Storage Building (New)
- RCRA Storage Piles (New)

The information identified as "New" has not been previously submitted for review. The information has been separated into four bundles, each complete with a copy of the above-mentioned information.

If you have any questions or comments concerning the attached information, please contact me at 860-747-6181.

Sincerely,

**LOUREIRO ENGINEERING ASSOCIATES, INC.**

A handwritten signature in black ink, appearing to read "Thomas J. Salimeno".

Thomas J. Salimeno, P.E.  
Senior Project Manager

Attachments

pc: V. Riva, Pratt & Whitney

# DRAFT

## UNIT SPECIFIC TECHNICAL MEMORANDUM: OUTSIDE CHEMICAL STORAGE SHED

### PRATT & WHITNEY, EAST HARTFORD, CT

---

**AREA:** North Klondike

**SUB-AREA:** Explosives Storage Area

**ENVIRONMENTAL UNIT:** Outside Chemical Storage Shed

**Location:** In the North Klondike Area, this unit is located on the fifth road south of the North Access Road from Perimeter Road (Drawing 1).

**Description:** The Outside Chemical Storage Shed was approximately 8 feet by 25 feet and was surrounded by a 30 foot by 35 foot chain link fence. The shed no longer exists, and was likely demolished sometime after operations in the area ceased in 1993.

**Dates of Operation:** Approximately 1957 to 1993.

**Processes:** Storage of acids, bases, and cleaning solvents.

**Aerial Photographs:** Large-scale aerial photographs for 1965, 1970, and 1975 were obtained from Keystone Aerial Surveys, Inc. Three small aerial photographs were also obtained from the Pratt & Whitney (P&W) Photographic Services Department.

The building is visible on the 1969 and 1970 aerial photographs obtained from Keystone Aerial Surveys, Inc. The area appears active and the building is intact. The building is visible on the 1969 aerial photograph obtained from P&W Photographic Services, but is obscured from view by brush and trees on the other photographs. The area appears much as on the photographs obtained from Keystone Aerial Surveys, Inc, active and the building is intact. Operational details within the area are not discernible on either set of photographs.

**Specific Contaminants of Concern:** Acids, bases, and cleaning solvents. In order to be as comprehensive as possible in the investigation that was conducted, the following constituent groups were analyzed for: volatile organic compounds (VOCs), metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, nickel, and zinc), and total petroleum hydrocarbons (TPH).

**Potential Release Mechanism:** Impacts to soils and groundwater associated with potential spillage or leakage from storage of chemicals inside the shed with potential subsequent migration to the subsurface.

### **INVESTIGATION AND REMEDIATION ACTIVITIES:**

Due to the potential for a release associated with chemicals stored in the shed, a subsurface investigation to determine the degree and extent of soil contamination was performed in July and October 1996. Prior to 1996, no investigation had reportedly been performed.

# DRAFT

## July 1996 Investigation (Loureiro Engineering Associates):

**Description:** On July 8, 1996, two soil borings, NK-SB-14 and NK-SB-15, were advanced in the vicinity of the Outdoor Chemical Storage Shed by Loureiro Engineering Associates, P.C. (LEA).

The soil sampling locations are shown on Drawing 1. Soil samples were collected from each of the borings in continuous 2-foot intervals to 14 feet, with a one foot interval from 14 to 15 feet. The depth of 15 feet was selected to ensure that sufficient data were collected for comparisons against the direct exposure criteria in the Connecticut Remediation Standard Regulation (RSR).

A total of seventeen soil samples were submitted to the LEA Analytical Laboratory and screened for the presence of target VOCs including benzene (BZ), ethylbenzene (EBZ), tetrachloroethylene (PCE), toluene (TL), 1,1,1-trichloroethane (TCA), trichloroethylene (TCE), and xylenes (XYL). Based on visual, olfactory, or instrument evidence, and with consideration of the potential release mechanism, two samples from each boring and one duplicate were submitted to Averill Environmental Laboratory, Inc. (AEL) and analyzed for the presence of VOCs, metals, and TPH. One sample at a depth of 2 to 4 feet from each boring was also analyzed for pH for a background comparison to the adjacent unit (the Chemical Storage Building).

On July 3, 1996, groundwater samples were collected from both borings, NK-SB-14 and NK-SB-15, using Geoprobe® screen-point groundwater sampling techniques. The groundwater samples were collected from a depth of 5 to 7 feet below the ground surface. The groundwater samples were submitted to AEL for analysis for VOCs, metals, and TPH. A summary of the samples collected and analyses performed is included in Table 1.

**Investigation Results:** Based on the boring logs, groundwater was encountered at approximately 4 feet in both borings. Varved clay was encountered at approximately 10.5 feet in both borings. No visual or olfactory evidence of contamination was noted on the boring logs.

Concentrations of constituents detected in soil samples collected for this unit are presented in Table 2. A complete summary of soil analytical results with detection limits is presented in Table 3. Detected concentrations at each sampling location are shown on Drawing 1. VOCs were not detected in the soil samples submitted to the LEA Analytical Laboratory. Methyl ethyl ketone (MEK) was the only VOC detected in the soil samples submitted to AEL. MEK was detected in the 2 to 4 foot sample from NK-SB-15 at a concentration of 19 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ).

Barium, chromium, and zinc were detected in each of the four samples submitted for analysis. TPH was not detected in the soil samples submitted to AEL. A pH of 6.0 and 4.8 was detected in the soil at a depth of 2 to 4 feet in NK-SB-14 and NK-SB-15, respectively.

Concentrations of constituents detected in groundwater samples collected for this unit are presented in Table 3. A complete summary of groundwater sample analytical results with detection limits is presented in Table 5. Detected concentrations at each groundwater sampling point are shown on Drawing 2. VOCs and TPH were not detected in the groundwater samples submitted to AEL. Barium and zinc were detected in groundwater samples from both NK-SB-14 and NK-SB-15. Barium was detected at concentrations of 0.024 and 0.033 milligrams per liter

# DRAFT

(mg/l), in NK-SB-14 and NK-SB-15, respectively. Zinc was detected at concentrations of 0.014 and 0.054 mg/l, in NK-SB-14 and NK-SB-15, respectively.

**Data Evaluation and Conclusions:** The data were compared to the default numeric criteria included in the RSR and the site-wide background soil concentrations for various metals (Fuss & O'Neill, 1994). For a more detailed discussion of background concentrations of metals in soil refer to *Technical Memorandum (TM) 4, Background Soil Sampling and Analysis*. Criteria are established in the RSR based on exposure pathways for various environmental media, including soil and groundwater. The evaluation of the soils data is based on a comparison to the default numeric residential direct exposure criteria (RDEC), the industrial/commercial direct exposure criteria (IDEC), and the GB pollutant mobility criteria (GBPMC) included in the RSR. The evaluation of the groundwater data is based on a comparison to the default numeric residential volatilization criteria (RVC), the industrial/commercial volatilization criteria (IVC), and the surface water protection criteria (SWPC) included in the RSR.

The concentrations of the metals detected in the soil samples are typical of site-wide background concentrations and are not indicative of a release from this unit. For the MEK and metals detected in soil, no exceedances of the RDEC or IDEC were noted. For the MEK, detected in soil from above the water table, no exceedance of the GBPMC was noted.

The concentrations of barium and zinc detected in groundwater, both of which occur naturally, are typical of background concentrations and are not indicative of a release from this unit. For the metals detected in groundwater, no exceedances of the SWPC were noted. Constituents detected in groundwater are presented in detail in *TM 3 Summary of Groundwater Sampling and Analysis*.

Based on the presence of MEK in the soil from one of the two borings, there is evidence that a release may have occurred in the vicinity of this unit. The degree and extent of the release has not been adequately characterized in the vicinity of the former Outdoor Chemical Storage Shed. Therefore, additional soil data were necessary to define the extent of the contamination.

## October 1996 Investigation (LEA):

**Description:** On October 15, 1996, three soil borings, NK-SB-205 through NK-SB-207, were advanced to a depth of 12 feet in a triangle around boring NK-SB-15 where MEK was detected at a depth of 2 to 4 feet. The sampling locations are shown on Drawing 1. The depth of 12 feet was selected to ensure that the top of the varved clay was encountered. Soil samples were collected from each of the borings in continuous 2-foot intervals.

A total of eighteen soil samples were submitted to the LEA Analytical Laboratory and screened for the presence of target VOCs. Based on visual, olfactory, or instrument evidence, and with consideration of the potential release mechanism, select samples from each boring were submitted to AEL and analyzed for the presence of VOCs. One of the two samples in each boring, and the single sample from NK-SB-205, was selected from 2 to 4 feet, the same interval where MEK had been detected in boring NK-SB-15. The sample at a depth of 2 to 4 feet from each boring was also analyzed for pH for a background comparison for the adjacent unit (the

*Soil this unit*

# DRAFT

Chemical Storage Building). A summary of the samples collected and analyses performed is included in Table 1.

**Investigation Results:** Based on the boring logs, groundwater was encountered at approximately 6 feet in all three borings. Varved clay was encountered at approximately 9 feet in boring NK-SB-207 and 9.5 feet in borings NK-SB-205 and NK-SB-206. No visual or olfactory evidence of contamination was noted on the boring logs.

Concentrations of constituents detected in soil samples collected for this unit are presented in Table 2. A complete summary of soil analytical results with detection limits is presented in Table 3. Detected concentrations at each sampling location are shown on Drawing 1. VOCs were not detected in the soil samples submitted to the LEA Analytical Laboratory or AEL. A pH of 5.3, 5.3, and 6.6 was detected in the soil at a depth of 2 to 4 feet in borings NK-SB-205, NK-SB-206, and NK-SB-207, respectively.

**Data Evaluation and Conclusions:** Because VOCs were not detected in the borings around NK-SB-15, where MEK had been detected, there is no confirming evidence that a release may have occurred in the vicinity of borings NK-SB-205 through NK-SB-207. The degree and extent of the release has been adequately characterized in the vicinity of the former Outdoor Chemical Storage Shed and no further investigation is warranted at this unit.

Adequate characterization has been performed to address possible releases in the vicinity of the former Outdoor Chemical Storage Shed. For the detected constituents, no exceedances of default numeric criteria were detected, and no further evaluation or remedial activity is warranted.

## REFERENCES:

Fuss & O'Neill, Inc, 1994, Soil Sampling Background Areas – North Klondike, prepared for Pratt & Whitney.

Keystone Aerial Surveys, Inc. 1965, Aerial Photo of Rentschler Airport and Surrounding Areas, East Hartford, CT.

Keystone Aerial Surveys, Inc. 1970, Aerial Photo of Rentschler Airport and Surrounding Areas, East Hartford, CT.

Keystone Aerial Surveys, Inc. 1975, Aerial Photo of Rentschler Airport and Surrounding Areas, East Hartford, CT.

Loureiro Engineering Associates, August 18, 1995, *Rentschler Airport and Klondike Areas Data Gap Investigation and Work Plan*, Pratt & Whitney, 400 Main Street, East Hartford, CT.

Loureiro Engineering Associates, October 1995, *Rentschler Airport and Klondike Areas Data Gap Investigation and Work Plan*, United Technologies Corporation, Pratt & Whitney, 400 Main Street, East Hartford, CT.

P&W Photographic Services Department, 1969, *Aerial Photograph, Negative Number Z-36268*, Pratt & Whitney, East Hartford, CT.

**DRAFT**

P&W Photographic Services Department, 1975, *Aerial Photograph, Negative Number CN-50747*, Pratt & Whitney, East Hartford, CT.

P&W Photographic Services Department, 1977, *Aerial Photograph, Negative Number 77445-0054AB* Pratt & Whitney, East Hartford, CT.

## **TABLES**

**Table 1**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 1 of 2

Sample Information						Analysis Information								
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Extraction	Miscellaneous
NK-SB-14	1015674	7/ 3/96	5	7	GW		x						x	x
NK-SB-14	1015581	7/ 8/96	0	2	SB	x								
NK-SB-14	1015582	7/ 8/96	2	4	SB	x	x					x	x	x
NK-SB-14	1015583	7/ 8/96	4	6	SB	x	x					x		x
NK-SB-14	1015584	7/ 8/96	6	8	SB	x								
NK-SB-14	1015585	7/ 8/96	8	10	SB	x								
NK-SB-14	1015586	7/ 8/96	10	12	SB	x								
NK-SB-14	1015587	7/ 8/96	12	14	SB	x								
NK-SB-14	1015588	7/ 8/96	14	15	SB	x								
NK-SB-15	1015672	7/ 3/96	5	7	GW		x					x		x
NK-SB-15	1015572	7/ 8/96	0	2	SPB	x								
NK-SB-15	1015573	7/ 8/96	2	4	SPB	x	x					x	x	x
NK-SB-15	1015574	7/ 8/96	4	6	SB	x								
NK-SB-15	1015575	7/ 8/96	6	8	SB	x	x					x		x
NK-SB-15	1015576	7/ 8/96	6	8	SB	x	x					x		x
NK-SB-15	1015577	7/ 8/96	8	10	SB	x								
NK-SB-15	1015578	7/ 8/96	10	12	SB	x								
NK-SB-15	1015579	7/ 8/96	12	14	SB	x								
NK-SB-15	1015580	7/ 8/96	14	15	SB	x								
NK-SB-205	1019283	10/15/96	0	2	SB	x								
NK-SB-205	1019284	10/15/96	2	4	SB	x	x							x
NK-SB-205	1019285	10/15/96	4	6	SB	x								
NK-SB-205	1019286	10/15/96	6	8	SB	x								
NK-SB-205	1019287	10/15/96	8	10	SB	x								
NK-SB-205	1019288	10/15/96	10	12	SB	x								
NK-SB-206	1019289	10/15/96	0	2	SB	x								
NK-SB-206	1019290	10/15/96	2	4	SB	x	x							x
NK-SB-206	1019291	10/15/96	4	6	SB	x	x							
NK-SB-206	1019292	10/15/96	6	8	SB	x								
NK-SB-206	1019293	10/15/96	8	10	SB	x								
NK-SB-206	1019294	10/15/96	10	12	SB	x								

Notes: 1. Legend: X - Analysed; at least one analyte over the detection limit; x - Analysed, no analytes in group over the detection limit

2. Printed on 07/22/99



**Table 1**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

DRAFT

Page 2 of 2

Notes: 1. Legend: X - Analysed; at least one analyte over the detection limit; x - Analysed, no analytes in group over the detection limit

2. Printed on 07/22/99

LEA

**Table 2**

DRAFT

**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - SOIL  
P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

Page 1 of 2

Notes: 1. Only Detects Shown  
2. Printed on 07/22/99



**Table 2**

*DRAFT*

**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - SOIL  
P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

Page 2 of 2

Notes: 1. Only Detects Shown  
2. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 1 of 24

	Location ID	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14
Sample ID	1015581	1015582	1015582	1015582	1015582	1015583	1015583	1015583
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996
Sample Time	14:40	14:50	14:50	14:50	14:50	14:59	14:59	14:59
Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	4' - 6'
Laboratory	LEA	AEL	AEL	AEL	LEA	AEL	AEL	LEA
Lab. Number	96-3276-148	AEL96007504	AEL96010880	AEL97002197	96-3277-149	AEL96007505	96-3278-150	
Constituent	Units							
Date Metals Analyzed	-		07/18/1996				07/18/1996	
Date Organics Analyzed	-	07/10/1996	07/15/1996			07/10/1996	07/25/1996	07/10/1996
Date Physical Analyzed	-		07/29/1996		02/28/1997		07/30/1996	
Date of Metals SPLP Analysis	-			10/04/1996				
Arsenic	mg/kg		<1.13				<1.19	
Arsenic (SPLP)	mg/L			<0.010				
Barium	mg/kg		12.6				23.5	
Barium (SPLP)	mg/L			<1.00				
Cadmium	mg/kg		<3.38				<3.56	
Cadmium (SPLP)	mg/L			<0.0010				
Chromium	mg/kg		6.87				7.48	
Chromium (SPLP)	mg/L			<0.050				
Lead	mg/kg		<22.5				<23.7	
Lead (SPLP)	mg/L			<0.0050				
Mercury	mg/kg		<0.225				<0.237	
Mercury (SPLP)	mg/L			<0.0020				
Nickel	mg/kg		<11.3				<11.9	
Nickel (SPLP)	mg/L			<0.10				
Selenium	mg/kg		<1.13				<1.19	
Selenium (SPLP)	mg/L			<0.010				
Silver	mg/kg		<5.63				<5.94	
Silver (SPLP)	mg/L			<0.020				
Zinc	mg/kg		12.4				13.8	
Zinc (SPLP)	mg/L			<0.050				
Total Petroleum Hydrocarbons	mg/kg		<38.0				<40.9	
pH of Soil	SU				6.0			
Acetone	µg/kg		<37				<70	
Acrolein	µg/kg		<19				<35	

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 2 of 24

	Location ID	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14
Sample ID	1015581	1015582	1015582	1015582	1015582	1015583	1015583	1015583
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996
Sample Time	14:40	14:50	14:50	14:50	14:50	14:59	14:59	14:59
Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	4' - 6'
Laboratory	LEA	AEL	AEL	AEL	LEA	AEL	AEL	LEA
Lab. Number	96-3276-148	AEL96007504	AEL96010880	AEL97002197	96-3277-149	AEL96007505	96-3278-150	
Constituent	Units							
Acrylonitrile	µg/kg		<19				<35	
Benzene	µg/kg		<7.4				<14	
Benzene (screening)	µg/kg	<14				<12		<14
Bromobenzene	µg/kg		<7.4				<14	
Bromoform	µg/kg		<7.4				<14	
Carbon Disulfide	µg/kg		<7.4				<14	
Carbon Tetrachloride	µg/kg		<7.4				<14	
Chlorobenzene	µg/kg		<7.4				<14	
Chlorodibromomethane	µg/kg		<7.4				<14	
Chloroethane	µg/kg		<7.4				<14	
Chloroethyl Vinyl Ether,2-	µg/kg		<7.4				<14	
Chloroform	µg/kg		<7.4				<14	
Chlorotoluene,o-	µg/kg		<7.4				<14	
Chlorotoluene,p-	µg/kg		<7.4				<14	
Dibromomethane	µg/kg		<7.4				<14	
Dichlorobenzene,1,2-	µg/kg		<7.4				<14	
Dichlorobenzene,1,3-	µg/kg		<7.4				<14	
Dichlorobenzene,1,4-	µg/kg		<7.4				<14	
Dichlorobromomethane	µg/kg		<7.4				<14	
Dichlorodifluoromethane	µg/kg		<7.4				<14	
Dichloroethane,1,1-	µg/kg		<7.4				<14	
Dichloroethane,1,2-	µg/kg		<7.4				<14	
Dichloroethylene,1,1-	µg/kg		<7.4				<14	
Dichloroethylene,1,2-cis-	µg/kg		<7.4				<14	
Dichloroethylene,1,2-trans-	µg/kg		<7.4				<14	
Dichloropropane,1,2-	µg/kg		<7.4				<14	
Dichloropropylene,1,3-cis-	µg/kg		<7.4				<14	
Dichloropropylene,1,3-trans-	µg/kg		<7.4				<14	

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 3 of 24

	Location ID	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14
Sample ID	1015581	1015582	1015582	1015582	1015582	1015583	1015583		
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996		
Sample Time	14:40	14:50	14:50	14:50	14:50	14:59	14:59		
Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'		
Laboratory	LEA	AEL	AEL	AEL	LEA	AEL	LEA		
Lab. Number	96-3276-148	AEL96007504	AEL96010880	AEL97002197	96-3277-149	AEL96007505	96-3278-150		
Constituent	Units								
Ethylbenzene	µg/kg		<7.4					<14	
Ethylbenzene (screening)	µg/kg								
Hexanone,2-	µg/kg		<19					<35	
Methyl Bromide	µg/kg		<7.4					<14	
Methyl Chloride	µg/kg		<7.4					<14	
Methyl Ethyl Ketone	µg/kg		<19					<35	
Methyl-2-pentanone,4-	µg/kg		<19					<35	
Methyl-tert-butyl Ether	µg/kg		<7.4					<14	
Methylene Chloride	µg/kg		<7.4					<14	
Styrene	µg/kg		<7.4					<14	
Tetrachloroethane,1,1,1,2-	µg/kg		<7.4					<14	
Tetrachloroethane,1,1,2,2-	µg/kg		<7.4					<14	
Tetrachloroethylene	µg/kg		<7.4					<14	
Tetrachloroethylene (screening)	µg/kg	<21				<18		<21	
Toluene	µg/kg		<7.4					<14	
Toluene (screening)	µg/kg	<20		.		<16		<20	
Trichloroethane,1,1,1-	µg/kg		<7.4					<14	
Trichloroethane,1,1,1- (screening)	µg/kg	<342				<283		<342	
Trichloroethane,1,1,2-	µg/kg		<7.4					<14	
Trichloroethylene	µg/kg		<7.4					<14	
Trichloroethylene (screening)	µg/kg	<33				<27		<33	
Trichloromonofluoromethane	µg/kg		<7.4					<14	
Trichloropropane,1,2,3-	µg/kg		<7.4					<14	
Vinyl Acetate	µg/kg		<7.4					<14	
Vinyl Chloride	µg/kg		<7.4					<14	
Xylenes (Total)	µg/kg		<7.4					<14	

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 4 of 24

	Location ID	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-15	NK-SB-15
Sample ID	1015584	1015585	1015586	1015587	1015588	1015572	1015573	
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996
Sample Time	15:07	15:25	15:40	15:50	16:00	12:40	12:53	
Sample Depth	6' - 8'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'	
Laboratory	LEA	AEL						
Lab. Number	96-3279-151	96-3280-152	96-3281-153	96-3282-154	96-3283-155	96-3265-137	96-3265-137	AEL96007501
Constituent	Units							
Date Metals Analyzed	-							07/18/1996
Date Organics Analyzed	-	07/10/1996	07/10/1996	07/10/1996	07/10/1996	07/10/1996	07/10/1996	07/15/1996
Date Physical Analyzed	-							07/19/1996
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							<1.16
Arsenic (SPLP)	mg/L							
Barium	mg/kg							9.89
Barium (SPLP)	mg/L							
Cadmium	mg/kg							<3.49
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							6.52
Chromium (SPLP)	mg/L							
Lead	mg/kg							<23.3
Lead (SPLP)	mg/L							
Mercury	mg/kg							<0.233
Mercury (SPLP)	mg/L							
Nickel	mg/kg							<11.6
Nickel (SPLP)	mg/L							
Selenium	mg/kg							<1.16
Selenium (SPLP)	mg/L							
Silver	mg/kg							<5.82
Silver (SPLP)	mg/L							
Zinc	mg/kg							11.1
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg							<38.5
pH of Soil	SU							
Acetone	µg/kg							<120
Acrolein	µg/kg							<15

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 5 of 24

	Location ID	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-15	NK-SB-15
Sample ID	1015584	1015585	1015586	1015587	1015588	1015572	1015573	1015573
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996
Sample Time	15:07	15:25	15:40	15:50	16:00	12:40	12:53	
Sample Depth	6' - 8'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'	
Laboratory	LEA	LEA	LEA	LEA	LEA	LEA	AEL	
Lab. Number	96-3279-151	96-3280-152	96-3281-153	96-3282-154	96-3283-155	96-3265-137	AEL96007501	
Constituent	Units							
Acrylonitrile	µg/kg							<15
Benzene	µg/kg							<6.1
Benzene (screening)	µg/kg	<15	<15	<14	<14	<14	<3	
Bromobenzene	µg/kg							<6.1
Bromoform	µg/kg							<6.1
Carbon Disulfide	µg/kg							<6.1
Carbon Tetrachloride	µg/kg							<6.1
Chlorobenzene	µg/kg							<6.1
Chlorodibromomethane	µg/kg							<6.1
Chloroethane	µg/kg							<6.1
Chloroethyl Vinyl Ether,2-	µg/kg							<6.1
Chloroform	µg/kg							<6.1
Chlorotoluene,o-	µg/kg							<6.1
Chlorotoluene,p-	µg/kg							<6.1
Dibromomethane	µg/kg							<6.1
Dichlorobenzene,1,2-	µg/kg							<6.1
Dichlorobenzene,1,3-	µg/kg							<6.1
Dichlorobenzene,1,4-	µg/kg							<6.1
Dichlorobromomethane	µg/kg							<6.1
Dichlorodifluoromethane	µg/kg							<6.1
Dichloroethane,1,1-	µg/kg							<6.1
Dichloroethane,1,2-	µg/kg							<6.1
Dichloroethylene,1,1-	µg/kg							<6.1
Dichloroethylene,1,2-cis-	µg/kg							<6.1
Dichloroethylene,1,2-trans-	µg/kg							<6.1
Dichloropropane,1,2-	µg/kg							<6.1
Dichloropropylene,1,3-cis-	µg/kg							<6.1
Dichloropropylene,1,3-trans-	µg/kg							<6.1

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 6 of 24

	Location ID	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-14	NK-SB-15	NK-SB-15
	Sample ID	1015584	1015585	1015586	1015587	1015588	1015572	1015573
	Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996
	Sample Time	15:07	15:25	15:40	15:50	16:00	12:40	12:53
	Sample Depth	6' - 8'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'
	Laboratory	LEA	LEA	LEA	LEA	LEA	LEA	AEL
	Lab. Number	96-3279-151	96-3280-152	96-3281-153	96-3282-154	96-3283-155	96-3265-137	AEL96007501
Constituent	Units							
Ethylbenzene	µg/kg							<6.1
Ethylbenzene (screening)	µg/kg							
Hexane,2-	µg/kg							<15
Methyl Bromide	µg/kg							<6.1
Methyl Chloride	µg/kg							<6.1
Methyl Ethyl Ketone	µg/kg							19
Methyl-2-pentanone,4-	µg/kg							<15
Methyl-tert-butyl Ether	µg/kg							<6.1
Methylene Chloride	µg/kg							<6.1
Styrene	µg/kg							<6.1
Tetrachloroethane,1,1,1,2-	µg/kg							<6.1
Tetrachloroethane,1,1,2,2-	µg/kg							<6.1
Tetrachloroethylene	µg/kg							<6.1
Tetrachloroethylene (screening)	µg/kg	<23	<23	<21	<22	<21	<4	
Toluene	µg/kg							<6.1
Toluene (screening)	µg/kg	<21	<21	<20	<20	<19	<4	
Trichloroethane,1,1,1-	µg/kg							<6.1
Trichloroethane,1,1,1- (screening)	µg/kg	<361	<368	<342	<348	<336	<65	
Trichloroethane,1,1,2-	µg/kg							<6.1
Trichloroethylene	µg/kg							<6.1
Trichloroethylene (screening)	µg/kg	<35	<36	<33	<34	<33	<6	
Trichloromonofluoromethane	µg/kg							<6.1
Trichloropropane,1,2,3-	µg/kg							<6.1
Vinyl Acetate	µg/kg							<6.1
Vinyl Chloride	µg/kg							<6.1
Xylenes (Total)	µg/kg							<6.1

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 7 of 24

	Location ID	NK-SB-15						
Sample ID	1015573	1015573	1015573	1015574	1015575	1015575	1015575	1015576
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996
Sample Time	12:53	12:53	12:53	13:07	13:15	13:15	13:15	13:23
Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	6' - 8'	6' - 8'
Laboratory	AEL	AEL	LEA	LEA	AEL	LEA	LEA	AEL
Lab. Number	AEL96010881	AEL97002196	96-3266-138	96-3267-139	AEL96007502	96-3268-140	96-3268-140	AEL96007503
Constituent	Units							
Date Metals Analyzed	-					07/18/1996		07/18/1996
Date Organics Analyzed	-			07/10/1996	07/10/1996	07/17/1996	07/10/1996	07/15/1996
Date Physical Analyzed	-		02/28/1997			07/19/1996		07/19/1996
Date of Metals SPLP Analysis	-	10/11/1996						
Arsenic	mg/kg					<1.23		<1.25
Arsenic (SPLP)	mg/L	<0.010						
Barium	mg/kg					22.5		17.5
Barium (SPLP)	mg/L	<1.00						
Cadmium	mg/kg					<3.69		<3.75
Cadmium (SPLP)	mg/L	<0.0010						
Chromium	mg/kg					7.01		7
Chromium (SPLP)	mg/L	<0.050						
Lead	mg/kg					<24.6		<25
Lead (SPLP)	mg/L	<0.0050						
Mercury	mg/kg					<0.246		<0.25
Mercury (SPLP)	mg/L	<0.0020						
Nickel	mg/kg					<12.3		<12.5
Nickel (SPLP)	mg/L	<0.10						
Selenium	mg/kg					<1.23		<1.25
Selenium (SPLP)	mg/L	<0.010						
Silver	mg/kg					<6.15		<6.25
Silver (SPLP)	mg/L	<0.020						
Zinc	mg/kg					10.2		10
Zinc (SPLP)	mg/L	<0.050						
Total Petroleum Hydrocarbons	mg/kg					<41.8		<40.0
pH of Soil	SU		4.8					
Acetone	µg/kg					<51		<35
Acrolein	µg/kg					<25		<17

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 8 of 24

	Location ID	NK-SB-15						
	Sample ID	1015573	1015573	1015573	1015574	1015575	1015575	1015576
	Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996
	Sample Time	12:53	12:53	12:53	13:07	13:15	13:15	13:23
	Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	6' - 8'
	Laboratory	AEL	AEL	LEA	LEA	AEL	LEA	AEL
	Lab. Number	AEL96010881	AEL97002196	96-3266-138	96-3267-139	AEL96007502	96-3268-140	AEL96007503
Constituent	Units							
Acrylonitrile	µg/kg					<25		<17
Benzene	µg/kg					<10		<7.0
Benzene (screening)	µg/kg			<15	<13		<12	
Bromobenzene	µg/kg					<10		<7.0
Bromoform	µg/kg					<10		<7.0
Carbon Disulfide	µg/kg					<10		<7.0
Carbon Tetrachloride	µg/kg					<10		<7.0
Chlorobenzene	µg/kg					<10		<7.0
Chlorodibromomethane	µg/kg					<10		<7.0
Chloroethane	µg/kg					<10		<7.0
Chloroethyl Vinyl Ether,2-	µg/kg					<10		<7.0
Chloroform	µg/kg					<10		<7.0
Chlorotoluene,o-	µg/kg					<10		<7.0
Chlorotoluene,p-	µg/kg					<10		<7.0
Dibromomethane	µg/kg					<10		<7.0
Dichlorobenzene,1,2-	µg/kg					<10		<7.0
Dichlorobenzene,1,3-	µg/kg					<10		<7.0
Dichlorobenzene,1,4-	µg/kg					<10		<7.0
Dichlorobromomethane	µg/kg					<10		<7.0
Dichlorodifluoromethane	µg/kg					<10		<7.0
Dichloroethane,1,1-	µg/kg					<10		<7.0
Dichloroethane,1,2-	µg/kg					<10		<7.0
Dichloroethylene,1,1-	µg/kg					<10		<7.0
Dichloroethylene,1,2-cis-	µg/kg					<10		<7.0
Dichloroethylene,1,2-trans-	µg/kg					<10		<7.0
Dichloropropane,1,2-	µg/kg					<10		<7.0
Dichloropropylene,1,3-cis-	µg/kg					<10		<7.0
Dichloropropylene,1,3-trans-	µg/kg					<10		<7.0

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 9 of 24

	Location ID	NK-SB-15						
Sample ID	1015573	1015573	1015573	1015574	1015575	1015575	1015575	1015576
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996
Sample Time	12:53	12:53	12:53	13:07	13:15	13:15	13:15	13:23
Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	6' - 8'	6' - 8'	6' - 8'
Laboratory	AEL	AEL	LEA	LEA	AEL	LEA	LEA	AEL
Lab. Number	AEL96010881	AEL97002196	96-3266-138	96-3267-139	AEL96007502	96-3268-140	96-3268-140	AEL96007503
Constituent	Units							
Ethylbenzene	µg/kg				<10			<7.0
Ethylbenzene (screening)	µg/kg							
Hexanone,2-	µg/kg				<25			<17
Methyl Bromide	µg/kg				<10			<7.0
Methyl Chloride	µg/kg				<10			<7.0
Methyl Ethyl Ketone	µg/kg				<25			<17
Methyl-2-pentanone,4-	µg/kg				<25			<17
Methyl-tert-butyl Ether	µg/kg				<10			<7.0
Methylene Chloride	µg/kg				<10			<7.0
Styrene	µg/kg				<10			<7.0
Tetrachloroethane,1,1,1,2-	µg/kg				<10			<7.0
Tetrachloroethane,1,1,2,2-	µg/kg				<10			<7.0
Tetrachloroethylene	µg/kg				<10			<7.0
Tetrachloroethylene (screening)	µg/kg			<23	<19		<18	
Toluene	µg/kg					<10		<7.0
Toluene (screening)	µg/kg			<22	<18		<16	
Trichloroethane,1,1,1-	µg/kg					<10		<7.0
Trichloroethane,1,1,1- (screening)	µg/kg			<375	<310		<283	
Trichloroethane,1,1,2-	µg/kg					<10		<7.0
Trichloroethylene	µg/kg					<10		<7.0
Trichloroethylene (screening)	µg/kg			<36	<30		<27	
Trichloromonofluoromethane	µg/kg					<10		<7.0
Trichloropropane,1,2,3-	µg/kg					<10		<7.0
Vinyl Acetate	µg/kg					<10		<7.0
Vinyl Chloride	µg/kg					<10		<7.0
Xylenes (Total)	µg/kg					<10		<7.0

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 10 of 24

	Location ID	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-205	NK-SB-205
Sample ID	1015576	1015577	1015578	1015579	1015580	1019283	1019284	
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	10/15/1996	10/15/1996	
Sample Time	13:23	13:37	13:42	14:10	14:25	12:30	12:45	
Sample Depth	6' - 8'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'	
Laboratory	LEA	AEL						
Lab. Number	96-3270-142	96-3271-143	96-3273-145	96-3274-146	96-3275-147	96-5149-394	96-5149-394	AEL96011867
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-	07/10/1996	07/10/1996	07/10/1996	07/10/1996	07/10/1996	10/16/1996	10/28/1996
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg							
pH of Soil	SU							
Acetone	µg/kg							<27
Acrolein	µg/kg							<14

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 11 of 24

	Location ID	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-205	NK-SB-205
Sample ID	1015576	1015577	1015578	1015579	1015580	1019283	1019284	
Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	10/15/1996	10/15/1996	
Sample Time	13:23	13:37	13:42	14:10	14:25	12:30	12:45	
Sample Depth	6' - 8'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'	
Laboratory	LEA	LEA	LEA	LEA	LEA	LEA	AEL	
Lab. Number	96-3270-142	96-3271-143	96-3273-145	96-3274-146	96-3275-147	96-5149-394	AEL96011867	
Constituent	Units							
Acrylonitrile	µg/kg							<14
Benzene	µg/kg							<5.4
Benzene (screening)	µg/kg	<16 nc	<15	<16	<16	<16	<8	
Bromobenzene	µg/kg							<5.4
Bromoform	µg/kg							<5.4
Carbon Disulfide	µg/kg							<5.4
Carbon Tetrachloride	µg/kg							<5.4
Chlorobenzene	µg/kg							<5.4
Chlorodibromomethane	µg/kg							<5.4
Chloroethane	µg/kg							<5.4
Chloroethyl Vinyl Ether,2-	µg/kg							<5.4
Chloroform	µg/kg							<5.4
Chlorotoluene,o-	µg/kg							<5.4
Chlorotoluene,p-	µg/kg							<5.4
Dibromomethane	µg/kg							<5.4
Dichlorobenzene,1,2-	µg/kg							<5.4
Dichlorobenzene,1,3-	µg/kg							<5.4
Dichlorobenzene,1,4-	µg/kg							<5.4
Dichlorobromomethane	µg/kg							<5.4
Dichlorodifluoromethane	µg/kg							<5.4
Dichloroethane,1,1-	µg/kg							<5.4
Dichloroethane,1,2-	µg/kg							<5.4
Dichloroethylene,1,1-	µg/kg							<5.4
Dichloroethylene,1,2-cis-	µg/kg							<5.4
Dichloroethylene,1,2-trans-	µg/kg							<5.4
Dichloropropane,1,2-	µg/kg							<5.4
Dichloropropylene,1,3-cis-	µg/kg							<5.4
Dichloropropylene,1,3-trans-	µg/kg							<5.4

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 12 of 24

	Location ID	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-15	NK-SB-205	NK-SB-205
	Sample ID	1015576	1015577	1015578	1015579	1015580	1019283	1019284
	Sample Date	07/08/1996	07/08/1996	07/08/1996	07/08/1996	07/08/1996	10/15/1996	10/15/1996
	Sample Time	13:23	13:37	13:42	14:10	14:25	12:30	12:45
	Sample Depth	6' - 8'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'
	Laboratory	LEA	LEA	LEA	LEA	LEA	LEA	AEL
	Lab. Number	96-3270-142	96-3271-143	96-3273-145	96-3274-146	96-3275-147	96-5149-394	AEL96011867
Constituent	Units							
Ethylbenzene	µg/kg							<5.4
Ethylbenzene (screening)	µg/kg						<16	
Hexanone,2-	µg/kg							<14
Methyl Bromide	µg/kg							<5.4
Methyl Chloride	µg/kg							<5.4
Methyl Ethyl Ketone	µg/kg							<14
Methyl-2-pentanone,4-	µg/kg							<14
Methyl-tert-butyl Ether	µg/kg							<5.4
Methylene Chloride	µg/kg							<8.2
Styrene	µg/kg							<5.4
Tetrachloroethane,1,1,1,2-	µg/kg							<5.4
Tetrachloroethane,1,1,2,2-	µg/kg							<5.4
Tetrachloroethylene	µg/kg							<5.4
Tetrachloroethylene (screening)	µg/kg	<25 nc	<23	<24	<24	<24	<20	
Toluene	µg/kg							<5.4
Toluene (screening)	µg/kg	<23 nc	<22	<23	<22	<23	<11	
Trichloroethane,1,1,1-	µg/kg							<5.4
Trichloroethane,1,1,1- (screening)	µg/kg	<398 nc	<375	<390	<382	<390	<203	
Trichloroethane,1,1,2-	µg/kg							<5.4
Trichloroethylene	µg/kg							<5.4
Trichloroethylene (screening)	µg/kg	<39 nc	<36	<38	<37	<38	<20	
Trichloromonofluoromethane	µg/kg							<5.4
Trichloropropane,1,2,3-	µg/kg							<5.4
Vinyl Acetate	µg/kg							<5.4
Vinyl Chloride	µg/kg							<5.4
Xylenes (Total)	µg/kg							<5.4

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 13 of 24

	Location ID	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205
Sample ID	1019284	1019284	1019285	1019286	1019287	1019288	1019289	1019289
Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
Sample Time	12:45	12:45	12:55	13:05	13:15	13:25	13:45	
Sample Depth	2' - 4'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	10' - 12'	0' - 2'	
Laboratory	AEL	LEA	LEA	LEA	LEA	LEA	LEA	
Lab. Number	AEL97002198	96-5150-395	96-5151-396	96-5152-397	96-5153-398	96-5154-399	96-5155-400	
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-		10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
Date Physical Analyzed	-	02/28/1997						
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg							
pH of Soil	SU	5.3						
Acetone	µg/kg							
Acrolein	µg/kg							

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 14 of 24

	Location ID	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-206
	Sample ID	1019284	1019284	1019285	1019286	1019287	1019288	1019289
	Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
	Sample Time	12:45	12:45	12:55	13:05	13:15	13:25	13:45
	Sample Depth	2' - 4'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	10' - 12'	0' - 2'
	Laboratory	AEL	LEA	LEA	LEA	LEA	LEA	LEA
	Lab. Number	AEL97002198	96-5150-395	96-5151-396	96-5152-397	96-5153-398	96-5154-399	96-5155-400
Constituent	Units							
Acrylonitrile	µg/kg							
Benzene	µg/kg							
Benzene (screening)	µg/kg		<6	<7	<8	<8	<8	<7
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether,2-	µg/kg							
Chloroform	µg/kg							
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene,1,2-	µg/kg							
Dichlorobenzene,1,3-	µg/kg							
Dichlorobenzene,1,4-	µg/kg							
Dichlorobromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane,1,1-	µg/kg							
Dichloroethane,1,2-	µg/kg							
Dichloroethylene,1,1-	µg/kg							
Dichloroethylene,1,2-cis-	µg/kg							
Dichloroethylene,1,2-trans-	µg/kg							
Dichloroproppane,1,2-	µg/kg							
Dichloropropylene,1,3-cis-	µg/kg							
Dichloropropylene,1,3-trans-	µg/kg							

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 15 of 24

	Location ID	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-205	NK-SB-206
	Sample ID	1019284	1019284	1019285	1019286	1019287	1019288	1019289
	Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
	Sample Time	12:45	12:45	12:55	13:05	13:15	13:25	13:45
	Sample Depth	2' - 4'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	10' - 12'	0' - 2'
	Laboratory	AEL	LEA	LEA	LEA	LEA	LEA	LEA
	Lab. Number	AEL97002198	96-5150-395	96-5151-396	96-5152-397	96-5153-398	96-5154-399	96-5155-400
Constituent	Units							
Ethylbenzene	µg/kg							
Ethylbenzene (screening)	µg/kg		<14	<16	<16	<17	<17	<15
Hexanone,2-	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl-2-pentanone,4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Styrene	µg/kg							
Tetrachloroethane,1,1,1,2-	µg/kg							
Tetrachloroethane,1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							
Tetrachloroethylene (screening)	µg/kg		<17	<20	<21	<22	<21	<19
Toluene	µg/kg							
Toluene (screening)	µg/kg		<10	<11	<12	<12	<12	<11
Trichloroethane,1,1,1-	µg/kg							
Trichloroethane,1,1,1- (screening)	µg/kg		<173	<199	<207	<215	<211	<188
Trichloroethane,1,1,2-	µg/kg							
Trichloroethylene	µg/kg							
Trichloroethylene (screening)	µg/kg		<17	<20	<20	<21	<21	<19
Trichloromonofluoromethane	µg/kg							
Trichloropropane,1,2,3-	µg/kg							
Vinyl Acetate	µg/kg							
Vinyl Chloride	µg/kg							
Xylenes (Total)	µg/kg							

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 16 of 24

	Location ID	NK-SB-206						
	Sample ID	1019290	1019290	1019290	1019291	1019291	1019292	1019293
	Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
	Sample Time	13:55	13:55	13:55	14:05	14:05	14:15	14:25
	Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'	8' - 10'
	Laboratory	AEL	AEL	LEA	AEL	LEA	LEA	LEA
	Lab. Number	AEL96011868	AEL97002199	96-5156-401	AEL96011869	96-5157-402	96-5158-403	96-5159-404
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-	10/29/1996		10/16/1996	10/29/1996	10/16/1996	10/16/1996	10/16/1996
Date Physical Analyzed	-		02/28/1997					
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg							
pH of Soil	SU		5.3					
Acetone	µg/kg	<58			<40			
Acrolein	µg/kg	<29			<20			

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 17 of 24

	Location ID	NK-SB-206	NK-SB-206	NK-SB-206	NK-SB-206	NK-SB-206	NK-SB-206	NK-SB-206
Sample ID	1019290	1019290	1019290	1019291	1019291	1019292	1019293	1019293
Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
Sample Time	13:55	13:55	13:55	14:05	14:05	14:15	14:25	
Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'	8' - 10'	
Laboratory	AEL	AEL	LEA	AEL	LEA	LEA	LEA	
Lab. Number	AEL96011868	AEL97002199	96-5156-401	AEL96011869	96-5157-402	96-5158-403	96-5159-404	
Constituent	Units							
Acrylonitrile	µg/kg	<29			<20			
Benzene	µg/kg	<12			<8.0			
Benzene (screening)	µg/kg			<6		<8	<8 nc	<8
Bromobenzene	µg/kg	<12			<8.0			
Bromoform	µg/kg	<12			<8.0			
Carbon Disulfide	µg/kg	<12			<8.0			
Carbon Tetrachloride	µg/kg	<12			<8.0			
Chlorobenzene	µg/kg	<12			<8.0			
Chlorodibromomethane	µg/kg	<12			<8.0			
Chloroethane	µg/kg	<12			<8.0			
Chloroethyl Vinyl Ether,2-	µg/kg	<12			<8.0			
Chloroform	µg/kg	<12			<8.0			
Chlorotoluene,o-	µg/kg	<12			<8.0			
Chlorotoluene,p-	µg/kg	<12			<8.0			
Dibromomethane	µg/kg	<12			<8.0			
Dichlorobenzene,1,2-	µg/kg	<12			<8.0			
Dichlorobenzene,1,3-	µg/kg	<12			<8.0			
Dichlorobenzene,1,4-	µg/kg	<12			<8.0			
Dichlorobromomethane	µg/kg	<12			<8.0			
Dichlorodifluoromethane	µg/kg	<12			<8.0			
Dichloroethane,1,1-	µg/kg	<12			<8.0			
Dichloroethane,1,2-	µg/kg	<12			<8.0			
Dichloroethylene,1,1-	µg/kg	<12			<8.0			
Dichloroethylene,1,2-cis-	µg/kg	<12			<8.0			
Dichloroethylene,1,2-trans-	µg/kg	<12			<8.0			
Dichloropropane,1,2-	µg/kg	<12			<8.0			
Dichloropropylene,1,3-cis-	µg/kg	<12			<8.0			
Dichloropropylene,1,3-trans-	µg/kg	<12			<8.0			

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 18 of 24

	Location ID	NK-SB-206						
	Sample ID	1019290	1019290	1019290	1019291	1019291	1019292	1019293
	Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
	Sample Time	13:55	13:55	13:55	14:05	14:05	14:15	14:25
	Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'	8' - 10'
	Laboratory	AEL	AEL	LEA	AEL	LEA	LEA	LEA
	Lab. Number	AEL96011868	AEL97002199	96-5156-401	AEL96011869	96-5157-402	96-5158-403	96-5159-404
Constituent	Units							
Ethylbenzene	µg/kg	<12			<8.0			
Ethylbenzene (screening)	µg/kg			<14		<17	<17 nc	<17
Hexanone,2-	µg/kg	<29			<20			
Methyl Bromide	µg/kg	<12			<8.0			
Methyl Chloride	µg/kg	<12			<8.0			
Methyl Ethyl Ketone	µg/kg	<29			<20			
Methyl-2-pentanone,4-	µg/kg	<29			<20			
Methyl-tert-butyl Ether	µg/kg	<12			<8.0			
Methylene Chloride	µg/kg	<12			<12			
Styrene	µg/kg	<12			<8.0			
Tetrachloroethane,1,1,1,2-	µg/kg	<12			<8.0			
Tetrachloroethane,1,1,2,2-	µg/kg	<12			<8.0			
Tetrachloroethylene	µg/kg	<12			<8.0			
Tetrachloroethylene (screening)	µg/kg			<17		<22	<22 nc	<21
Toluene	µg/kg	<12			<8.0			
Toluene (screening)	µg/kg			<10		<12	<12 nc	<12
Trichloroethane,1,1,1-	µg/kg	<12			<8.0			
Trichloroethane,1,1,1- (screening)	µg/kg			<173		<215	<219 nc	<211
Trichloroethane,1,1,2-	µg/kg	<12			<8.0			
Trichloroethylene	µg/kg	<12			<8.0			
Trichloroethylene (screening)	µg/kg			<17		<21	<22 nc	<21
Trichloromonofluoromethane	µg/kg	<12			<8.0			
Trichloropropane,1,2,3-	µg/kg	<12			<8.0			
Vinyl Acetate	µg/kg	<12			<8.0			
Vinyl Chloride	µg/kg	<12			<8.0			
Xylenes (Total)	µg/kg	<12			<8.0			

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 19 of 24

	Location ID	NK-SB-206	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207
Sample ID	1019294	1019295	1019295	1019296	1019296	1019296	1019296	1019297
Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
Sample Time	14:35	15:45	15:45	15:55	15:55	15:55	15:55	16:00
Sample Depth	10' - 12'	0' - 2'	0' - 2'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'
Laboratory	LEA	AEL	LEA	AEL	AEL	LEA	LEA	LEA
Lab. Number	96-5175-013	AEL96011870	96-5176-014	AEL96011871	AEL97002200	96-5177-015	96-5178-016	
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-	10/17/1996	10/29/1996	10/17/1996	10/29/1996		10/17/1996	10/17/1996
Date Physical Analyzed	-					02/28/1997		
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg							
pH of Soil	SU					6.6		
Acetone	µg/kg		<31		<27			
Acrolein	µg/kg		<10		<14			

Notes: 1. Printed on 07/22/99



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 20 of 24

	Location ID	NK-SB-206	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207
	Sample ID	1019294	1019295	1019295	1019296	1019296	1019296	1019297
	Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
	Sample Time	14:35	15:45	15:45	15:55	15:55	15:55	16:00
	Sample Depth	10' - 12'	0' - 2'	0' - 2'	2' - 4'	2' - 4'	2' - 4'	4' - 6'
	Laboratory	LEA	AEL	LEA	AEL	AEL	LEA	LEA
	Lab. Number	96-5175-013	AEL96011870	96-5176-014	AEL96011871	AEL97002200	96-5177-015	96-5178-016
Constituent	Units							
Acrylonitrile	µg/kg		<10		<14			
Benzene	µg/kg		<4.1		<5.5			
Benzene (screening)	µg/kg	<7		<8			<8 nc	<7
Bromobenzene	µg/kg		<4.1		<5.5			
Bromoform	µg/kg		<4.1		<5.5			
Carbon Disulfide	µg/kg		<4.1		<5.5			
Carbon Tetrachloride	µg/kg		<4.1		<5.5			
Chlorobenzene	µg/kg		<4.1		<5.5			
Chlorodibromomethane	µg/kg		<4.1		<5.5			
Chloroethane	µg/kg		<4.1		<5.5			
Chloroethyl Vinyl Ether,2-	µg/kg		<4.1		<5.5			
Chloroform	µg/kg		<4.1		<5.5			
Chlorotoluene,o-	µg/kg		<4.1		<5.5			
Chlorotoluene,p-	µg/kg		<4.1		<5.5			
Dibromomethane	µg/kg		<4.1		<5.5			
Dichlorobenzene,1,2-	µg/kg		<4.1		<5.5			
Dichlorobenzene,1,3-	µg/kg		<4.1		<5.5			
Dichlorobenzene,1,4-	µg/kg		<4.1		<5.5			
Dichlorobromomethane	µg/kg		<4.1		<5.5			
Dichlorodifluoromethane	µg/kg		<4.1		<5.5			
Dichloroethane,1,1-	µg/kg		<4.1		<5.5			
Dichloroethane,1,2-	µg/kg		<4.1		<5.5			
Dichloroethylene,1,1-	µg/kg		<4.1		<5.5			
Dichloroethylene,1,2-cis-	µg/kg		<4.1		<5.5			
Dichloroethylene,1,2-trans-	µg/kg		<4.1		<5.5			
Dichloroproppane,1,2-	µg/kg		<4.1		<5.5			
Dichloropropylene,1,3-cis-	µg/kg		<4.1		<5.5			
Dichloropropylene,1,3-trans-	µg/kg		<4.1		<5.5			

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 21 of 24

	Location ID	NK-SB-206	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207	NK-SB-207
Sample ID	1019294	1019295	1019295	1019296	1019296	1019296	1019296	1019297
Sample Date	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996	10/15/1996
Sample Time	14:35	15:45	15:45	15:55	15:55	15:55	15:55	16:00
Sample Depth	10' - 12'	0' - 2'	0' - 2'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'
Laboratory	LEA	AEL	LEA	AEL	AEL	LEA	LEA	LEA
Lab. Number	96-5175-013	AEL96011870	96-5176-014	AEL96011871	AEL97002200	96-5177-015	96-5178-016	
Constituent	Units							
Ethylbenzene	µg/kg		<4.1		<5.5			
Ethylbenzene (screening)	µg/kg	<16		<16			<17 nc	<16
Hexanone,2-	µg/kg		<10		<14			
Methyl Bromide	µg/kg		<4.1		<5.5			
Methyl Chloride	µg/kg		<4.1		<5.5			
Methyl Ethyl Ketone	µg/kg		<10		<14			
Methyl-2-pentanone,4-	µg/kg		<10		<14			
Methyl-tert-butyl Ether	µg/kg		<4.1		<5.5			
Methylene Chloride	µg/kg		<4.1		<6.9			
Styrene	µg/kg		<4.1		<5.5			
Tetrachloroethane,1,1,1,2-	µg/kg		<4.1		<5.5			
Tetrachloroethane,1,1,2,2-	µg/kg		<4.1		<5.5			
Tetrachloroethylene	µg/kg		<4.1		<5.5			
Tetrachloroethylene (screening)	µg/kg	<20		<21			<22 nc	<20
Toluene	µg/kg		<4.1		<5.5			
Toluene (screening)	µg/kg	<11		<12			<12 nc	<11
Trichloroethane,1,1,1-	µg/kg		<4.1		<5.5			
Trichloroethane,1,1,1- (screening)	µg/kg	<195		<207			<219 nc	<199
Trichloroethane,1,1,2-	µg/kg		<4.1		<5.5			
Trichloroethylene	µg/kg		<4.1		<5.5			
Trichloroethylene (screening)	µg/kg	<19		<20			<22 nc	<20
Trichloromonofluoromethane	µg/kg		<4.1		<5.5			
Trichloropropane,1,2,3-	µg/kg		<4.1		<5.5			
Vinyl Acetate	µg/kg		<4.1		<5.5			
Vinyl Chloride	µg/kg		<4.1		<5.5			
Xylenes (Total)	µg/kg		<4.1		<5.5			

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 22 of 24

	Location ID	NK-SB-207	NK-SB-207	NK-SB-207				
Sample ID	1019298	1019299	1019300					
Sample Date	10/15/1996	10/15/1996	10/15/1996					
Sample Time	16:05	16:15	16:25					
Sample Depth	6' - 8'	8' - 10'	10' - 12'					
Laboratory	LEA	LEA	LEA					
Lab. Number	96-5179-017	96-5180-018	96-5181-019					
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-	10/17/1996	10/17/1996	10/17/1996				
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Total Petroleum Hydrocarbons	mg/kg							
pH of Soil	SU							
Acetone	µg/kg							
Acrolein	µg/kg							

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 23 of 24

	Location ID	NK-SB-207	NK-SB-207	NK-SB-207				
	Sample ID	1019298	1019299	1019300				
	Sample Date	10/15/1996	10/15/1996	10/15/1996				
	Sample Time	16:05	16:15	16:25				
	Sample Depth	6' - 8'	8' - 10'	10' - 12'				
	Laboratory	LEA	LEA	LEA				
	Lab. Number	96-5179-017	96-5180-018	96-5181-019				
Constituent	Units							
Acrylonitrile	µg/kg							
Benzene	µg/kg							
Benzene (screening)	µg/kg	<7	<7	<8				
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether, 2-	µg/kg							
Chloroform	µg/kg							
Chlorotoluene, o-	µg/kg							
Chlorotoluene, p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene, 1,2-	µg/kg							
Dichlorobenzene, 1,3-	µg/kg							
Dichlorobenzene, 1,4-	µg/kg							
Dichlorodibromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane, 1,1-	µg/kg							
Dichloroethane, 1,2-	µg/kg							
Dichloroethylene, 1,1-	µg/kg							
Dichloroethylene, 1,2-cis-	µg/kg							
Dichloroethylene, 1,2-trans-	µg/kg							
Dichloropropane, 1,2-	µg/kg							
Dichloropropylene, 1,3-cis-	µg/kg							
Dichloropropylene, 1,3-trans-	µg/kg							

Notes: 1. Printed on 07/22/99

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

DRAFT

Page 24 of 24

Page 24 of 24

	Location ID	NK-SB-207	NK-SB-207	NK-SB-207				
	Sample ID	1019298	1019299	1019300				
	Sample Date	10/15/1996	10/15/1996	10/15/1996				
	Sample Time	16:05	16:15	16:25				
	Sample Depth	6' - 8'	8' - 10'	10' - 12'				
	Laboratory	LEA	LEA	LEA				
	Lab. Number	96-5179-017	96-5180-018	96-5181-019				
<b>Constituent</b>	<b>Units</b>							
Ethylbenzene	µg/kg							
Ethylbenzene (screening)	µg/kg	<14	<16	<16				
Hexanone,2-	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl-2-pentanone,4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Styrene	µg/kg							
Tetrachloroethane,1,1,1,2-	µg/kg							
Tetrachloroethane,1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							
Tetrachloroethylene (screening)	µg/kg	<18	<20	<20				
Toluene	µg/kg							
Toluene (screening)	µg/kg	<10	<11	<11				
Trichloroethane,1,1,1-	µg/kg							
Trichloroethane,1,1,1- (screening)	µg/kg	<179	<199	<203				
Trichloroethane,1,1,2-	µg/kg							
Trichloroethylene	µg/kg							
Trichloroethylene (screening)	µg/kg	<18	<20	<20				
Trichloromonofluoromethane	µg/kg							
Trichloropropane,1,2,3-	µg/kg							
Vinyl Acetate	µg/kg							
Vinyl Chloride	µg/kg							
Xylenes (Total)	µg/kg							

Notes: 1. Printed on 07/22/99



**Table 4** **DRAFT**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

Page 1 of 1

Notes: 1. Only Detects Shown  
2. Printed on 07/22/99



**Table 5**  
**SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 1 of 3

	Location ID	NK-SB-14	NK-SB-15					
	Sample ID	1015674	1015672					
	Sample Date	07/03/1996	07/03/1996					
	Sample Time	14:50	14:00					
	Sample Depth	5' - 7'	5' - 7'					
	Laboratory	AEL	AEL					
	Lab. Number	AEL96007379	AEL96007378					
Constituent	Units							
Date Metals Analyzed	-	07/17/1996	07/17/1996					
Date Organics Analyzed	-	07/10/1996	07/10/1996					
Date Physical Analyzed	-	07/16/1996	07/16/1996					
Arsenic	mg/L	<0.010	<0.010					
Barium	mg/L	0.024	0.033					
Cadmium	mg/L	<0.0010	<0.0010					
Chromium	mg/L	<0.010	<0.010					
Lead	mg/L	<0.0050	<0.0050					
Mercury	mg/L	<0.0010	<0.0010					
Nickel	mg/L	<0.020	<0.020					
Selenium	mg/L	<0.010	<0.010					
Silver	mg/L	<0.010	<0.010					
Zinc	mg/L	0.014	0.054					
Total Petroleum Hydrocarbons	mg/L	<1.0	<1.0					
Acetone	µg/L	<150	<20					
Acrolein	µg/L	<10	<10					
Acrylonitrile	µg/L	<10	<10					
Benzene	µg/L	<4.0	<4.0					
Bromobenzene	µg/L	<4.0	<4.0					
Bromoform	µg/L	<4.0	<4.0					
Carbon Disulfide	µg/L	<4.0	<4.0					
Carbon Tetrachloride	µg/L	<4.0	<4.0					
Chlorobenzene	µg/L	<4.0	<4.0					
Chlorodibromomethane	µg/L	<4.0	<4.0					
Chloroethane	µg/L	<4.0	<4.0					
Chloroethyl Vinyl Ether,2-	µg/L	<4.0	<4.0					
Chloroform	µg/L	<4.0	<4.0					
Chlorotoluene,o-	µg/L	<4.0	<4.0					

Notes: 1. Printed on 07/22/99



**Table 5**  
**SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

**DRAFT**

Page 2 of 3

	Location ID	NK-SB-14	NK-SB-15						
	Sample ID	1015674	1015672						
	Sample Date	07/03/1996	07/03/1996						
	Sample Time	14:50	14:00						
	Sample Depth	5' - 7'	5' - 7'						
	Laboratory	AEL	AEL						
	Lab. Number	AEL96007379	AEL96007378						
Constituent	Units								
Chlorotoluene,p-	µg/L	<4.0	<4.0						
Dibromomethane	µg/L	<4.0	<4.0						
Dichlorobenzene,1,2-	µg/L	<4.0	<4.0						
Dichlorobenzene,1,3-	µg/L	<4.0	<4.0						
Dichlorobenzene,1,4-	µg/L	<4.0	<4.0						
Dichlorobromomethane	µg/L	<4.0	<4.0						
Dichlorodifluoromethane	µg/L	<4.0	<4.0						
Dichloroethane,1,1-	µg/L	<4.0	<4.0						
Dichloroethane,1,2-	µg/L	<4.0	<4.0						
Dichloroethylene,1,1-	µg/L	<4.0	<4.0						
Dichloroethylene,1,2-cis-	µg/L	<4.0	<4.0						
Dichloroethylene,1,2-trans-	µg/L	<4.0	<4.0						
Dichloropropane,1,2-	µg/L	<4.0	<4.0						
Dichloropropylene,1,3-cis-	µg/L	<4.0	<4.0						
Dichloropropylene,1,3-trans-	µg/L	<4.0	<4.0						
Ethylbenzene	µg/L	<4.0	<4.0						
Hexanone,2-	µg/L	<10	<10						
Methyl Bromide	µg/L	<4.0	<4.0						
Methyl Chloride	µg/L	<4.0	<4.0						
Methyl Ethyl Ketone	µg/L	<17	<10						
Methyl-2-pentanone,4-	µg/L	<12	<10						
Methyl-tert-butyl Ether	µg/L	<4.0	<4.0						
Methylene Chloride	µg/L	<4.0	<4.0						
Styrene	µg/L	<4.0	<4.0						
Tetrachloroethane,1,1,1,2-	µg/L	<4.0	<4.0						
Tetrachloroethane,1,1,2,2-	µg/L	<4.0	<4.0						
Tetrachloroethylene	µg/L	<4.0	<4.0						
Toluene	µg/L	<4.0	<4.0						

Notes: 1. Printed on 07/22/99

**Table 5**  
**SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Outside Chemical Storage Shed**

*DRAFT*

Page 3 of 3

Notes: 1. Printed on 07/22/99



## **DRAWINGS**

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID # 2669**

**Facility Name: PRATT & WHITNEY - MAIN STREET**

**Facility ID#: CTD990672081**

**Phase Classification: R-5**

**Purpose of Target Sheet:**

**Oversized (in Site File)**       **Oversized (in Map Drawer)**

**Page(s) Missing (Please Specify Below)**

**Privileged**       **Other (Provide Purpose Below)**

**Description of Oversized Material, if applicable:**

**DRAWING 2: GROUNDWATER INVESTIGATIONS,  
EXPLOSIVE OUTSIDE CHEMICAL STORAGE SHED,  
LOCATIONS AND CONSTITUENTS MAP**

**Map**     **Photograph**     **Other (Specify Below)**

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID # 2669**

**Facility Name: PRATT & WHITNEY - MAIN STREET**

**Facility ID#: CTD990672081**

**Phase Classification: R-5**

**Purpose of Target Sheet:**

**Oversized (in Site File)**       **Oversized (in Map Drawer)**

**Page(s) Missing (Please Specify Below)**

**Privileged**

**Other (Provide Purpose Below)**

**Description of Oversized Material, if applicable:**

**DRAWING 1: SOIL INVESTIGATIONS, EXPLOSIVE OUTSIDE CHEMICAL STORAGE SHED, LOCATIONS AND CONSTITUENTS MAP**

**Map**     **Photograph**     **Other (Specify Below)**



Loureiro Engineering Associates, Inc.

August 3, 1999

**US Environmental Protection Agency**  
JFK Federal Building (HBT)  
1 Congress Street  
Boston, MA 02114-2023

Attn.: Juan Perez

**RE: Summary Investigation and Remediation Report - Airport/Klondike Area**  
**Pratt & Whitney, East Hartford, Connecticut**  
**LEA Comm. No. 68VG311**

Dear Mr. Perez:

Attached please find four copies of additional information for the above-mentioned report for the Airport/Klondike Area at the Pratt & Whitney facility located at 400 Main Street in East Hartford, Connecticut. The information provided in this package includes the following:

- Outside Chemical Storage Shed (New)
- Chemical Storage Building (New)

The information identified as "New" has not been previously submitted for review. The information has been separated into four bundles, each complete with a copy of the above-mentioned information.

If you have any questions or comments concerning the attached information, please contact me at 860-747-6181.

Sincerely,

**LOUREIRO ENGINEERING ASSOCIATES, INC.**



Thomas J. Salimeno, P.E.  
Senior Project Manager

Attachments

pc: V. Riva, Pratt & Whitney

# DRAFT

## **UNIT SPECIFIC TECHNICAL MEMORANDUM: CHEMICAL STORAGE BUILDING PRATT & WHITNEY, EAST HARTFORD, CT**

---

**AREA:** North Klondike

**SUB-AREA:** Explosives Storage Area

**ENVIRONMENTAL UNIT:** Chemical Storage Building

**Location:** The Chemical Storage Building is located in the North Klondike Area on the fifth road south off of the north access road, see Drawing 1.

**Description:** The Chemical Storage Building was a 6 foot by 9 foot building surrounded by a 20 foot by 24 foot chain-link fence. The building no longer exists and was likely demolished sometime after operations were halted in 1993.

**Dates of Operation:** Approximately 1957 to 1993.

**Processes:** Storage of acids, bases, and cleaning solvents.

**Aerial Photographs:** Large-scale aerial photographs for 1965, 1970, and 1975 were obtained from Keystone Aerial Surveys, Inc. Three small aerial photographs were also obtained from the Pratt & Whitney (P&W) Photographic Services Department.

All of these aerial photographs confirm that there was a structure located in the Explosives Storage Area that matches the description of the Chemical Storage Building. No contamination was identifiable on the aerial photographs that depict this unit.

**Specific Contaminants of Concern:** Acids, bases, and cleaning solvents. In order to be as comprehensive as possible in the investigation that was conducted, the following constituent groups were analyzed for: volatile organic compounds (VOCs), metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, nickel, and zinc), and total petroleum hydrocarbons (TPH).

**Potential Release Mechanism:** Impacts to soils and groundwater associated with potential spillage or leakage from the storage of chemicals inside the building.

### **INVESTIGATION AND REMEDIATION ACTIVITIES:**

Due to the potential for a release associated with chemicals stored in the building, subsurface investigations to determine the degree and extent of soil contamination were performed in July 1996, October 1996, and July 1997. Prior to 1996, no investigation had reportedly been performed.

**July 1996 Investigation (LEA):**

# DRAFT

**Description:** On July 2, 1996, two soil borings (NK-SB-16 and NK-SB-17) were advanced in the vicinity of the Chemical Storage Building by Loureiro Engineering Associates, P.C. (LEA), as shown on Figure 1. Soil samples were collected from each of the borings in continuous 2-foot intervals to 14 feet, with a one foot interval from 14 to 15 feet. The depth of 15 feet was selected to ensure that sufficient data were collected for comparisons against the direct exposure criteria in the Connecticut Remediation Standard Regulation (RSR).

A total of 17 soil samples were submitted to the LEA Analytical Laboratory and screened for the presence of target VOCs, including benzene (BZ), ethylbenzene (EBZ), tetrachloroethylene (PCE), toluene (TL), 1,1,1-trichloroethane (TCA), trichloroethylene (TCE), and xylenes (XYL). Based on visual, olfactory, or instrument evidence, and with consideration of the potential release mechanism, two samples from each boring were submitted to Averill Environmental Laboratory, Inc. (AEL) and analyzed for the presence of VOCs, metals, and TPH.

On July 3, 1996, groundwater samples were also collected from both borings (NK-SB-16 and NK-SB-17) using Geoprobe® screen-point groundwater sampling techniques. The groundwater samples were collected from a depth of 5 to 7 feet below the ground surface. The groundwater samples were submitted to AEL for analysis for VOCs, metals, and TPH. A summary of the samples collected and analyses performed is included in Table 1.

**Investigation Results:** Based on the boring logs, groundwater was encountered at approximately 4 feet in both borings. Varved clay was encountered at approximately 10 feet in boring NK-SB-16 and 10.5 feet in boring NK-SB-17. No visual or olfactory evidence of contamination was noted on the boring logs.

Concentrations of constituents detected in soil samples collected for this unit are presented in Table 2. A complete summary of the sample analytical results with detection limits is presented in Table 3. Detected concentrations at each soil sampling location are shown on Drawing 1. No VOCs were detected in the soil samples submitted to the LEA Analytical Laboratory. No VOCs or TPH were detected in the soil samples submitted to AEL. One or more of the metals analyzed were detected in each of the four samples submitted for analysis. These metals include arsenic, barium, chromium, nickel, and zinc.

Concentrations of constituents detected in groundwater samples collected for this unit are presented in Table 4. A complete summary of groundwater sample analytical results with detection limits is presented in Table 5. The concentrations of the constituents detected at each groundwater sampling location are shown on Drawing 2. No VOCs or TPH were detected in the groundwater samples submitted to AEL. One or more of the metals analyzed were detected in each of the two groundwater samples submitted for analysis. Barium was detected in NK-SB-16 and NK-SB-17 at concentrations of 0.055 and 0.034 milligrams per liter (mg/l), respectively. Zinc was detected in NK-SB-16 and NK-SB-17 at concentrations of 0.156 and 0.299 mg/l, respectively.

**Data Evaluation and Conclusions:** The data were compared against the default numeric criteria included in the RSR and the site-wide background soil concentrations for the North Klondike for various metals. For a more detailed discussion of background concentrations of metals in soil,

# DRAFT

refer to Technical Memorandum (TM) 4, *Background Soil Sampling and Analysis*. Criteria are established in the RSR based on exposure pathways for various environmental media, including soil and groundwater. The qualitative evaluation of the soils data is based on a comparison to the residential direct exposure criteria (RDEC), the industrial/commercial direct exposure criteria (IDEC), the GB pollutant mobility criteria (GBPMC) included in the RSR. The evaluation of the groundwater data is based on a comparison to the surface water protection criteria (SWPC) and the residential volatilization criteria (RVC) and industrial/commercial volatilization criteria (IVC) included in the RSR.

The concentrations of the metals detected in these samples are typical of site-wide background concentrations, except for the barium, chromium, nickel, and zinc detected in NK-SB-16 at a depth of 8 to 10 feet, and the zinc detected in NK-SB-17 at a depth of 14 to 15 feet, which are elevated above the site-wide background concentrations. Metals concentrations detected in unsaturated soil samples collected from these borings were consistent with site-wide background concentrations, therefore, the metals detected at this unit are believed to be typical of background concentrations, and are not indicative of a release from this unit. For the metals detected in soil, no exceedances of the RDEC and IDEC were noted.

The concentrations of barium detected in the groundwater samples are typical of background concentrations and are not indicative of a release from this unit. Background concentrations of metals in groundwater are discussed in greater detail in TM 3, *Summary of Groundwater Sampling and Analysis, North Klondike and North Airport Areas*. The concentrations of zinc were greater than concentrations found at other units within the Explosives Storage Area. For the metals detected in groundwater, zinc was detected above the SWPC of 0.123 mg/l in NK-SB-16 and NK-SB-17.

Based on field observations and the laboratory results, there is limited evidence that a release may have occurred at this unit. Elevated zinc concentrations are present in groundwater; although, zinc concentrations in the soil are generally typical of background. Additional investigation is required to determine the source of the elevated zinc detected in groundwater.

## October 1996 Investigation (LEA):

**Description:** On October 16, 1996, three soil borings (NK-SB-208 through NK-SB-210) were in the vicinity of the Chemical Storage Building, as shown on Figure 1. The borings were located in a triangle placed around the groundwater locations with elevated zinc concentrations; one of the boring was upgradient and the other two were down gradient of the groundwater sampling locations. Soil samples were collected from each of the borings in continuous 2-foot intervals to a depth of 12 feet in NK-SB-208, and to a depth of 8 feet in boring NK-SB-209 and NK-SB-210. The depth of 12 feet was selected to ensure that the varved clay was encountered. Because clay was encountered above 12 feet in the first two borings, the third boring was only advanced to 8 feet.

A total of 17 soil samples were submitted to the LEA Analytical Laboratory and screened for the presence of select VOCs. Based on visual, olfactory, or instrument evidence, and with

# DRAFT

consideration of the potential release mechanism, one sample from each boring was submitted to AEL and analyzed for the presence of metals.

Unsaturated soil samples from the 2 to 4 foot interval from borings NK-SB-208 through NK-SB-210 were also analyzed by AEL for pH to look for evidence of a possible acid spill, which could potentially mobilize the naturally occurring zinc in the soil. For the purpose of comparison, soil samples from the 2 to 4 foot interval at the adjacent unit (the Outside Chemical Storage Shed) were also submitted to AEL for analysis for pH. The soil samples were selected from borings NK-SB-14 and NK-SB-15 and NK-SB-205 through NK-SB-207 in the Outside Chemical Storage Shed Area.

On October 16, 1996, groundwater samples were collected from all three borings (NK-SB-208 through NK-SB-210) using Geoprobe® screen-point groundwater sampling techniques. The groundwater samples were collected from a depth of 7 to 9 feet below the ground surface from NK-SB-208 and NK-SB-209, and at a depth of 4.5 to 6.5 feet from NK-SB-210. The groundwater samples were submitted to AEL for metals analysis. A summary of the samples collected and analyses performed during this investigation is included in Table 1.

**Investigation Results:** Based on the boring logs, groundwater was encountered at approximately 4 feet in borings NK-SB-208 and NK-SB-209 and 3.5 feet in boring NK-SB-210. Varved clay was encountered at approximately 8.5 feet in borings NK-SB-208 and NK-SB-209 and 7.5 feet in boring NK-SB-210. No visual or olfactory evidence of contamination was noted on the boring logs.

Concentrations of constituents detected in soil samples collected for this unit are presented in Table 2. The highest concentration of each constituent detected above background at each sampling location is shown on Figure 1. No VOCs were detected in the soil samples submitted to the LEA Analytical Laboratory. One or more of the metals analyzed were detected in each of the three soil samples submitted for analysis. These metals include arsenic, barium, chromium, and zinc. The pH of the soil samples from this unit ranged from 5.0 to 7.1. The pH of the soil samples from the adjacent unit (the Outside Chemical Storage Shed) ranged from 4.8 to 6.6.

Concentrations of constituents detected in groundwater samples collected for this unit are presented in Table 3. One or more of the metals analyzed were detected in each of the three groundwater samples submitted to AEL. Barium was detected in NK-SB-208 through NK-SB-210 at concentrations of 0.108, 0.058, and 0.069 mg/l, respectively. Zinc was detected in NK-SB-208 through NK-SB-210 at concentrations of 0.090, 0.012, and 0.085 mg/l, respectively.

**Data Evaluation and Conclusions:** The data were compared against the default numeric criteria included in the RSR and the site-wide background soil concentrations for the North Klondike for various metals. For a more detailed discussion of background concentrations of metals in soil, refer to TM 4, *Background Soil Sampling and Analysis*. Criteria are established in the RSR based on exposure pathways for various environmental media, including soil and groundwater. The qualitative evaluation of the soils data is based on a comparison to the RDEC, the IDEC, and the GBPMC included in the RSR. The evaluation of the groundwater data is based on a comparison to the SWPC, RVC, and IVC included in the RSR.

# DRAFT

The concentrations of the metals detected in these samples are typical of site-wide background concentrations, except for barium detected in NK-SB-208 at a depth of 6 to 8 feet, NK-SB-209 at a depth of 6 to 8 feet, and NK-SB-210 at a depth of 4 to 6 feet, which are elevated above the site-wide background concentrations. The metals detected in soil samples collected at this unit are believed to be typical of background concentrations, and are not indicative of a release from this unit. For the metals detected in soil, no exceedances of the RDEC and IDEC were noted.

The concentrations of barium and zinc detected in the groundwater samples are typical of background concentrations and are not indicative of a release from this unit. Background concentrations of metals in groundwater are discussed in greater detail in TM 3, *Summary of Groundwater Sampling and Analysis, North Klondike and North Airport Areas*. The concentrations of zinc were lower than concentrations found at other units within the Explosives Storage Area. For the metals detected in groundwater, no exceedances of the SWPC were noted.

Based on field observations and the laboratory results, there is limited evidence that a release may have occurred at this unit. No elevated metals concentrations are present in groundwater. Additional investigation is required to determine the source of the elevated barium detected in soil.

### **July 1997 Investigation (LEA):**

**Description:** On July 16, 1997, two soil borings (NK-SB-341 and NK-SB-342) were advanced in the vicinity of the Chemical Storage Building, as shown on Figure 1. The borings were located within the footprint of the former building (NK-SB-341) and immediately to the west of the former building (NK-SB-342). The borings were located within and immediately adjacent to the former building footprint so as to intercept any releases from within the building or its immediate vicinity. Soil samples were collected from each boring in continuous 2-foot intervals. The depth of 12 feet was selected to ensure that the varved clay was encountered.

A total of 13 soil samples were submitted to the LEA Analytical Laboratory and screened for the presence of selected VOCs. Based on visual, olfactory, or instrument evidence, and with consideration of the potential release mechanism, one sample from each boring was submitted to Quanterra Environmental Services (QNT), and analyzed for VOCs metals, and pH.

On July 16, 1997, groundwater samples were collected from both borings, NK-SB-341 and NK-SB-342, using Geoprobe® screen-point groundwater sampling techniques. The groundwater samples were collected from depths of 4 to 8 feet below the ground surface. The groundwater samples were submitted to QNT for analysis for VOCs and metals from approximately the same intervals as the corresponding soil samples. A summary of the samples collected and analyses performed during this investigation is included in Table 1.

**Investigation Results:** Based on the boring logs, groundwater was encountered at approximately 4 feet in borings NK-SB-341 and NK-SB-342. Varved clay was encountered at approximately 9 feet in both soil borings. No visual or olfactory evidence of contamination was noted on the boring logs.

# DRAFT

Concentrations of constituents detected in soil samples collected for this unit are presented in Table 2. The concentration of each constituent detected at sampling location is shown on Figure 1. No VOCs were detected in the soil samples submitted to the LEA Analytical Laboratory. From the samples submitted to QNT from NK-SB-341 and NK-SB-342, acetone was detected at concentrations of 15J µg/kg in both samples methylene chloride was detected at concentrations of 3.1J and 7.5 µg/kg, respectively, and. The pH ranged from 4.8 to 5.5. The pH of the soil samples from the adjacent unit (the Outside Chemical Storage Shed) ranged from 4.8 to 6.6.

Barium, chromium, lead, and nickel were detected in soil boring NK-SB-341 at a depth of 6 to 8 feet at concentrations of 36.5, 4.8, 1.9, and 7.5 mg/kg, respectively. Barium, chromium, lead, and nickel were detected in soil boring NK-SB-342 at a depth of 6 to 8 feet at concentrations of 37.7, 5.7, 1.9, and 6.1 mg/kg, respectively. The concentrations of the metals detected in these samples are typical of site-wide background concentrations. The metals detected at this unit are believed to be typical of background concentrations, and are not indicative of a release from this unit.

Concentrations of constituents detected in groundwater sample collected from soil borings NK-SB-341 and NK-SB-342 are presented in Table 4. Groundwater samples were submitted to QNT for analysis for VOCs and metals. No VOCs were detected in the groundwater samples submitted to QNT. Metals detected in both groundwater samples collected from both soil borings included arsenic, barium, chromium, lead, nickel, and zinc. The concentrations of metals detected in groundwater from NK-SB-341 were: arsenic, 0.0146 mg/l; barium, 0.779 LJ mg/l; chromium, 0.0584 mg/l; lead, 0.0181 mg/l; nickel, 0.0611 mg/l; and zinc 0.3 LJ mg/l. The concentrations of metals detected in groundwater from NK-SB-342 were: arsenic, 0.0206 mg/l; barium, 0.797 mg/l; chromium, 0.216 mg/l; lead, 0.0657 mg/l; nickel, 0.121 mg/l; and zinc 3.18 mg/l. The "L" qualifier indicates that physical and chemical interferences were present in the analysis, and the "J" qualifier indicates that the concentration is estimated.

**Data Evaluation and Conclusions:** Based on field observations and the laboratory results, there is no evidence that a release has occurred at this unit. Elevated zinc concentrations are present in groundwater; although, the concentrations in the soil are typical of background. The data were compared against the default numeric criteria included in the RSR and the site-wide background soil concentrations. This evaluation of the soils data is based on a comparison to the RDEC, the GBPMC included in the RSR, as well as the site-wide background soil concentrations. The qualitative evaluation of the groundwater data is based on a comparison to the SWPC and the residential and industrial/commercial volatilization criteria included in the RSR.

The concentrations of the metals detected in these soil samples are typical of "Walpole Soils" background concentrations, and are not indicative of a release from this unit. The pH of the soil samples collected at the same depth were similar at both environmental units.

The concentrations of barium detected in the groundwater samples, which occurs naturally, are typical of background concentrations and are not indicative of a release from this unit. For the metals detected in soil, no exceedances of the residential or industrial/commercial direct exposure criteria were noted. For the metals detected in groundwater, arsenic, lead, and zinc were detected above their respective surface water protection criteria of 0.004, 0.013, and 0.123

# DRAFT

mg/l in NK-SB-341 and NK-SB-342. For the metals detected in soil, no exceedances of the residential or industrial/commercial direct exposure criteria were noted.

## PROPOSED ACTIONS:

Based on the soil pH results, no evidence of a potential acid release was observed. No elevated zinc concentrations were identified in unsaturated soils in this unit. With respect to the elevated zinc detected in the groundwater, the groundwater data may indicate naturally elevated zinc concentrations.

## REFERENCES:

Keystone Aerial Surveys, Inc. 1965, *Aerial Photo of Rentschler Airport and Surrounding Areas*, East Hartford, CT.

Keystone Aerial Surveys, Inc. 1970, *Aerial Photo of Rentschler Airport and Surrounding Areas*, East Hartford, CT.

Keystone Aerial Surveys, Inc. 1975, *Aerial Photo of Rentschler Airport and Surrounding Areas*, East Hartford, CT.

Loureiro Engineering Associates, August 18, 1995, *Rentschler Airport and Klondike Areas Data Gap Investigation and Work Plan*, Pratt & Whitney, 400 Main Street, East Hartford, CT.

Loureiro Engineering Associates, October 1995, *Rentschler Airport and Klondike Areas Data Gap Investigation and Work Plan*, United Technologies Corporation, Pratt & Whitney, 400 Main Street, East Hartford, CT.

P&W Photographic Services Department, 1969, *Aerial Photograph, Negative Number Z-36268*, Pratt & Whitney, East Hartford, CT.

P&W Photographic Services Department, 1975, *Aerial Photograph, Negative Number CN-50747*, Pratt & Whitney, East Hartford, CT.

P&W Photographic Services Department, 1977, *Aerial Photograph, Negative Number 77445-0054AB* Pratt & Whitney, East Hartford, CT.

---

## **TABLES**

**DRAFT**

**Table 1**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

Page 1 of 2

Sample Information					Analysis Information									
Location ID	Sample ID	Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Extraction	Miscellaneous
NK-SB-16	1015564	7/2/96	0	2	SB	x								
NK-SB-16	1015565	7/2/96	2	4	SB	x	x					x	x	x
NK-SB-16	1015566	7/2/96	4	6	SB	x								
NK-SB-16	1015567	7/2/96	6	8	SB	x								
NK-SB-16	1015568	7/2/96	8	10	SB	x	x					x		x
NK-SB-16	1015569	7/2/96	10	12	SB	x								
NK-SB-16	1015570	7/2/96	12	14	SB	x								
NK-SB-16	1015571	7/2/96	14	15	SB	x								
NK-SB-16	1015671	7/3/96	5	7	GW		x					x		x
NK-SB-17	1015503	7/2/96	0	2	SB	x								
NK-SB-17	1015504	7/2/96	2	4	SB	x	x					x	x	x
NK-SB-17	1015505	7/2/96	4	6	SB	x								
NK-SB-17	1015506	7/2/96	4	6	SB	x								
NK-SB-17	1015507	7/2/96	6	8	SB	x								
NK-SB-17	1015508	7/2/96	8	10	SB	x								
NK-SB-17	1015509	7/2/96	10	12	SB	x								
NK-SB-17	1015510	7/2/96	12	14	SB	x								
NK-SB-17	1015563	7/2/96	14	15	SB	x	x					x		x
NK-SB-17	1015669	7/3/96	5	7	GW		x					x		x
NK-SB-208	1019303	10/16/96	0	2	SB	x								
NK-SB-208	1019304	10/16/96	2	4	SB	x								x
NK-SB-208	1019305	10/16/96	4	6	SB	x								
NK-SB-208	1019306	10/16/96	6	8	SB	x						x		
NK-SB-208	1019263	10/16/96	7	9	GW							x		
NK-SB-208	1019307	10/16/96	8	10	SB	x								
NK-SB-208	1019308	10/16/96	10	12	SB	x								
NK-SB-209	1019309	10/16/96	0	2	SB	x								
NK-SB-209	1019310	10/16/96	2	4	SB	x								x
NK-SB-209	1019311	10/16/96	4	6	SB	x								
NK-SB-209	1019312	10/16/96	6	8	SB	x						x		
NK-SB-209	1019313	10/16/96	6	8	SB	x								

Notes: 1. Legend: X - Analysed; at least one analyte over the detection limit; x - Analysed, no analytes in group over the detection limit

2. Printed on 07/21/99



**Table 1**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 2 of 2

Notes: 1. Legend: X - Analysed; at least one analyte over the detection limit; x - Analysed, no analytes in group over the detection limit

2. Printed on 07/21/99



**Table 2**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

Page 1 of 4

Notes: 1. Only Detects Shown  
2. Printed on 07/26/1999



**Table 2**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

Page 2 of 4

Notes: 1. Only Detects Shown  
2. Printed on 07/26/1999



**Table 2**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

Page 3 of 4

Notes: 1. Only Detects Shown  
2. Printed on 07/26/1999

**Table 2**  
**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

Page 4 of 4

Notes: 1. Only Detects Shown  
2. Printed on 07/26/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 1 of 40

	Location ID	NK-SB-16	NK-SB-16						
	Sample ID	1015564	1015565	1015565	1015565	1015565	1015566	1015567	1015567
	Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
	Sample Time	14:00	14:10	14:10	14:10	14:10	14:30	14:45	
	Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	6' - 8'	
	Laboratory	LEA	AEL	AEL	AEL	LEA	LEA	LEA	
	Lab. Number	96-3193-042	AEL96007309	AEL96010882	AEL97002195	96-3197-046	96-3198-047	96-3200-049	
Constituent	Units								
Date Metals Analyzed	-		07/10/1996						
Date Organics Analyzed	-	07/03/1996	07/08/1996			07/03/1996	07/03/1996	07/03/1996	
Date Physical Analyzed	-		07/18/1996		02/28/1997				
Date of Metals SPLP Analysis	-			10/11/1996					
Arsenic	mg/kg		<1.16						
Arsenic (SPLP)	mg/L			<0.010					
Barium	mg/kg		13.7						
Barium (SPLP)	mg/L			<1.00					
Cadmium	mg/kg		<3.49						
Cadmium (SPLP)	mg/L			<0.0010					
Chromium	mg/kg		<5.81						
Chromium (SPLP)	mg/L			<0.050					
Lead	mg/kg		<23.2						
Lead (SPLP)	mg/L			<0.0050					
Mercury	mg/kg		<0.232						
Mercury (SPLP)	mg/L			<0.0020					
Nickel	mg/kg		<11.6						
Nickel (SPLP)	mg/L			<0.10					
Selenium	mg/kg		<1.16						
Selenium (SPLP)	mg/L			<0.010					
Silver	mg/kg		<5.81						
Silver (SPLP)	mg/L			<0.020					
Zinc	mg/kg		23.6						
Zinc (SPLP)	mg/L			0.126					
Dibromo-3-chloropropane, 1,2-	µg/kg								
Total Petroleum Hydrocarbons	mg/kg		<38.3						
pH	No Un								
pH of Soil	SU				5.6				

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 2 of 40

	Location ID	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16
Sample ID	1015564	1015565	1015565	1015565	1015565	1015566	1015567	
Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
Sample Time	14:00	14:10	14:10	14:10	14:10	14:30		14:45
Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'		6' - 8'
Laboratory	LEA	AEL	AEL	AEL	LEA	LEA		LEA
Lab. Number	96-3193-042	AEL96007309	AEL96010882	AEL97002195	96-3197-046	96-3198-047		96-3200-049
Constituent	Units							
Dichloro-2-butylene,1,4-trans-	µg/kg							
Acetone	µg/kg		<37					
Acetonitrile	µg/kg							
Acrolein	µg/kg		<18					
Acrylonitrile	µg/kg		<18					
Allyl Chloride	µg/kg							
Benzene	µg/kg		<7.3					
Benzene (screening)	µg/kg	<17 nc				<19 nc	<13	<11 nc
Bromobenzene	µg/kg		<7.3					
Bromoform	µg/kg		<7.3					
Carbon Disulfide	µg/kg		<7.3					
Carbon Tetrachloride	µg/kg		<7.3					
Chlorobenzene	µg/kg		<7.3					
Chlorodibromomethane	µg/kg		<7.3					
Chloroethane	µg/kg		<7.3					
Chloroethyl Vinyl Ether,2-	µg/kg		<7.3					
Chloroform	µg/kg		<7.3					
Chloroprene,beta-	µg/kg							
Chlorotoluene,o-	µg/kg		<7.3					
Chlorotoluene,p-	µg/kg		<7.3					
Dibromomethane	µg/kg		<7.3					
Dichlorobenzene,1,2-	µg/kg		<7.3					
Dichlorobenzene,1,3-	µg/kg		<7.3					
Dichlorobenzene,1,4-	µg/kg		<7.3					
Dichlorobromomethane	µg/kg		<7.3					
Dichlorodifluoromethane	µg/kg		<7.3					
Dichloroethane,1,1-	µg/kg		<7.3					
Dichloroethane,1,2-	µg/kg		<7.3					

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 3 of 40

	Location ID	NK-SB-16						
	Sample ID	1015564	1015565	1015565	1015565	1015565	1015566	1015567
	Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
	Sample Time	14:00	14:10	14:10	14:10	14:10	14:30	14:45
	Sample Depth	0' - 2'	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	6' - 8'
	Laboratory	LEA	AEL	AEL	AEL	LEA	LEA	LEA
	Lab. Number	96-3193-042	AEL96007309	AEL96010882	AEL97002195	96-3197-046	96-3198-047	96-3200-049
Constituent	Units							
Dichloroethylene,1,1-	µg/kg		<7.3					
Dichloroethylene,1,2-cis-	µg/kg		<7.3					
Dichloroethylene,1,2-trans-	µg/kg		<7.3					
Dichloropropane,1,2-	µg/kg		<7.3					
Dichloropropylene,1,3-, NOS	µg/kg							
Dichloropropylene,1,3-cis-	µg/kg		<7.3					
Dichloropropylene,1,3-trans-	µg/kg		<7.3					
Dioxane,1,4-	µg/kg							
Ethylbenzene	µg/kg		<7.3					
Ethylbenzene (screening)	µg/kg							
Ethylene Dibromide	µg/kg							
Ethylmethacrylate	µg/kg							
Hexanone,2-	µg/kg		<18					
Iodomethane	µg/kg							
Isobutyl Alcohol	µg/kg							
Methacrylonitrile	µg/kg							
Methyl Bromide	µg/kg		<7.3					
Methyl Chloride	µg/kg		<7.3					
Methyl Ethyl Ketone	µg/kg		<18					
Methyl Methacrylate	µg/kg							
Methyl-2-pentanone,4-	µg/kg		<18					
Methyl-tert-butyl Ether	µg/kg		<7.3					
Methylene Chloride	µg/kg		<7.3					
Propionitrile	µg/kg							
Styrene	µg/kg		<7.3					
Tetrachloroethane,1,1,1,2-	µg/kg		<7.3					
Tetrachloroethane,1,1,2,2-	µg/kg		<7.3					
Tetrachloroethylene	µg/kg		<7.3					

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 4 of 40

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 5 of 40

	Location ID	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-17	NK-SB-17
	Sample ID	1015568	1015568	1015569	1015570	1015571	1015503	1015504
	Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
	Sample Time	14:50	14:50	14:57	15:15	15:20	10:25	10:29
	Sample Depth	8' - 10'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'
	Laboratory	AEL	LEA	LEA	LEA	LEA	LEA	AEL
	Lab. Number	AEL96007310	96-3199-048	96-3201-050	96-3202-051	96-3203-052	96-3184-033	AEL96007307
Constituent	Units							
Date Metals Analyzed	-	07/10/1996						07/10/1996
Date Organics Analyzed	-	07/08/1996	07/03/1996	07/03/1996	07/03/1996	07/03/1996	07/03/1996	07/08/1996
Date Physical Analyzed	-	07/18/1996						07/18/1996
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg	7.8						<1.15
Arsenic (SPLP)	mg/L							
Barium	mg/kg	389						13.7
Barium (SPLP)	mg/L							
Cadmium	mg/kg	<5.03						<3.46
Cadmium (SPLP)	mg/L							
Chromium	mg/kg	52.9						6.42
Chromium (SPLP)	mg/L							
Lead	mg/kg	<33.5						<23.1
Lead (SPLP)	mg/L							
Mercury	mg/kg	<0.335						<0.231
Mercury (SPLP)	mg/L							
Nickel	mg/kg	47.5						<11.5
Nickel (SPLP)	mg/L							
Selenium	mg/kg	<1.68						<1.15
Selenium (SPLP)	mg/L							
Silver	mg/kg	<8.38						<5.77
Silver (SPLP)	mg/L							
Zinc	mg/kg	115						65.2
Zinc (SPLP)	mg/L							
Dibromo-3-chloropropane,1,2-	µg/kg							
Total Petroleum Hydrocarbons	mg/kg	<76.4						<39.2
pH	No Un							
pH of Soil	SU							

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 6 of 40

	Location ID	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-17	NK-SB-17
	Sample ID	1015568	1015568	1015569	1015570	1015571	1015503	1015504
	Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
	Sample Time	14:50	14:50	14:57	15:15	15:20	10:25	10:29
	Sample Depth	8' - 10'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'
	Laboratory	AEL	LEA	LEA	LEA	LEA	LEA	AEL
	Lab. Number	AEL96007310	96-3199-048	96-3201-050	96-3202-051	96-3203-052	96-3184-033	AEL96007307
Constituent	Units							
Dichloro-2-butylene,1,4-trans-	µg/kg							
Acetone	µg/kg	<140						<37
Acetonitrile	µg/kg							
Acrolein	µg/kg	<70						<18
Acrylonitrile	µg/kg	<70						<18
Allyl Chloride	µg/kg							
Benzene	µg/kg	<28						<7.4
Benzene (screening)	µg/kg		<13	<14	<16	<16	<11 nc	
Bromobenzene	µg/kg	<28						<7.4
Bromoform	µg/kg	<28						<7.4
Carbon Disulfide	µg/kg	<28						<7.4
Carbon Tetrachloride	µg/kg	<28						<7.4
Chlorobenzene	µg/kg	<28						<7.4
Chlorodibromomethane	µg/kg	<28						<7.4
Chloroethane	µg/kg	<28						<7.4
Chloroethyl Vinyl Ether,2-	µg/kg	<28						<7.4
Chloroform	µg/kg	<28						<7.4
Chloroprene,beta-	µg/kg							
Chlorotoluene,o-	µg/kg	<28						<7.4
Chlorotoluene,p-	µg/kg	<28						<7.4
Dibromomethane	µg/kg	<28						<7.4
Dichlorobenzene,1,2-	µg/kg	<28						<7.4
Dichlorobenzene,1,3-	µg/kg	<28						<7.4
Dichlorobenzene,1,4-	µg/kg	<28						<7.4
Dichlorobromomethane	µg/kg	<28						<7.4
Dichlorodifluoromethane	µg/kg	<28						<7.4
Dichloroethane,1,1-	µg/kg	<28						<7.4
Dichloroethane,1,2-	µg/kg	<28						<7.4

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 7 of 40

	Location ID	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-16	NK-SB-17	NK-SB-17
	Sample ID	1015568	1015568	1015569	1015570	1015571	1015503	1015504
	Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
	Sample Time	14:50	14:50	14:57	15:15	15:20	10:25	10:29
	Sample Depth	8' - 10'	8' - 10'	10' - 12'	12' - 14'	14' - 15'	0' - 2'	2' - 4'
	Laboratory	AEL	LEA	LEA	LEA	LEA	LEA	AEL
	Lab. Number	AEL96007310	96-3199-048	96-3201-050	96-3202-051	96-3203-052	96-3184-033	AEL96007307
Constituent	Units							
Dichloroethylene,1,1-	µg/kg	<28						<7.4
Dichloroethylene,1,2-cis-	µg/kg	<28						<7.4
Dichloroethylene,1,2-trans-	µg/kg	<28						<7.4
Dichloropropane,1,2-	µg/kg	<28						<7.4
Dichloropropylene,1,3-, NOS	µg/kg							
Dichloropropylene,1,3-cis-	µg/kg	<28						<7.4
Dichloropropylene,1,3-trans-	µg/kg	<28						<7.4
Dioxane,1,4-	µg/kg							
Ethylbenzene	µg/kg	<28						<7.4
Ethylbenzene (screening)	µg/kg							
Ethylene Dibromide	µg/kg							
Ethylmethacrylate	µg/kg							
Hexanone,2-	µg/kg	<70						<18
Iodomethane	µg/kg							
Isobutyl Alcohol	µg/kg							
Methacrylonitrile	µg/kg							
Methyl Bromide	µg/kg	<28						<7.4
Methyl Chloride	µg/kg	<28						<7.4
Methyl Ethyl Ketone	µg/kg	<70						<18
Methyl Methacrylate	µg/kg							
Methyl-2-pentanone,4-	µg/kg	<70						<18
Methyl-tert-butyl Ether	µg/kg	<28						<7.4
Methylene Chloride	µg/kg	<28						<7.4
Propionitrile	µg/kg							
Styrene	µg/kg	<28						<7.4
Tetrachloroethane,1,1,1,2-	µg/kg	<28						<7.4
Tetrachloroethane,1,1,2,2-	µg/kg	<28						<7.4
Tetrachloroethylene	µg/kg	<28						<7.4

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 8 of 40

Notes: Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 9 of 40

	Location ID	NK-SB-17	NK-SB-17						
	Sample ID	1015504	1015504	1015504	1015505	1015506	1015507	1015508	1015508
	Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
	Sample Time	10:29	10:29	10:29	11:00	11:08	11:15	11:20	
	Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'	8' - 10'	
	Laboratory	AEL	AEL	LEA	LEA	LEA	LEA	LEA	LEA
	Lab. Number	AEL96010883	AEL97002194	96-3185-034	96-3186-035	96-3187-036	96-3188-037	96-3189-038	
Constituent	Units								
Date Metals Analyzed	-								
Date Organics Analyzed	-			07/03/1996	07/03/1996	07/03/1996	07/03/1996	07/03/1996	07/03/1996
Date Physical Analyzed	-		02/28/1997						
Date of Metals SPLP Analysis	-	10/11/1996							
Arsenic	mg/kg								
Arsenic (SPLP)	mg/L	<0.010							
Barium	mg/kg								
Barium (SPLP)	mg/L	<1.00							
Cadmium	mg/kg								
Cadmium (SPLP)	mg/L	<0.0010							
Chromium	mg/kg								
Chromium (SPLP)	mg/L	<0.050							
Lead	mg/kg								
Lead (SPLP)	mg/L	<0.0050							
Mercury	mg/kg								
Mercury (SPLP)	mg/L	<0.0020							
Nickel	mg/kg								
Nickel (SPLP)	mg/L	<0.10							
Selenium	mg/kg								
Selenium (SPLP)	mg/L	<0.010							
Silver	mg/kg								
Silver (SPLP)	mg/L	<0.020							
Zinc	mg/kg								
Zinc (SPLP)	mg/L	0.134							
Dibromo-3-chloropropane,1,2-	µg/kg								
Total Petroleum Hydrocarbons	mg/kg								
pH	No Un								
pH of Soil	SU		5.5						

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 10 of 40

	Location ID	NK-SB-17						
	Sample ID	1015504	1015504	1015504	1015505	1015506	1015507	1015508
	Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
	Sample Time	10:29	10:29	10:29	11:00	11:08	11:15	11:20
	Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'	8' - 10'
	Laboratory	AEL	AEL	LEA	LEA	LEA	LEA	LEA
	Lab. Number	AEL96010883	AEL97002194	96-3185-034	96-3186-035	96-3187-036	96-3188-037	96-3189-038
Constituent	Units							
Dichloro-2-butylene,1,4-trans-	µg/kg							
Acetone	µg/kg							
Acetonitrile	µg/kg							
Acrolein	µg/kg							
Acrylonitrile	µg/kg							
Allyl Chloride	µg/kg							
Benzene	µg/kg							
Benzene (screening)	µg/kg			<16	<14	<19 nc	<16	<17 nc
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether,2-	µg/kg							
Chloroform	µg/kg							
Chloroprene,beta-	µg/kg							
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene,1,2-	µg/kg							
Dichlorobenzene,1,3-	µg/kg							
Dichlorobenzene,1,4-	µg/kg							
Dichlorobromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane,1,1-	µg/kg							
Dichloroethane,1,2-	µg/kg							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 11 of 40

	Location ID	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-17
Sample ID	1015504	1015504	1015504	1015505	1015506	1015507	1015508	
Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996	07/02/1996
Sample Time	10:29	10:29	10:29	11:00	11:08	11:15		11:20
Sample Depth	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'		8' - 10'
Laboratory	AEL	AEL	LEA	LEA	LEA	LEA		LEA
Lab. Number	AEL96010883	AEL97002194	96-3185-034	96-3186-035	96-3187-036	96-3188-037		96-3189-038
Constituent	Units							
Dichloroethylene, 1,1-	µg/kg							
Dichloroethylene, 1,2-cis-	µg/kg							
Dichloroethylene, 1,2-trans-	µg/kg							
Dichloropropane, 1,2-	µg/kg							
Dichloropropylene, 1,3-, NOS	µg/kg							
Dichloropropylene, 1,3-cis-	µg/kg							
Dichloropropylene, 1,3-trans-	µg/kg							
Dioxane, 1,4-	µg/kg							
Ethylbenzene	µg/kg							
Ethylbenzene (screening)	µg/kg							
Ethylene Dibromide	µg/kg							
Ethylmethacrylate	µg/kg							
Hexanone, 2-	µg/kg							
Iodomethane	µg/kg							
Isobutyl Alcohol	µg/kg							
Methacrylonitrile	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl Methacrylate	µg/kg							
Methyl-2-pentanone, 4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Propionitrile	µg/kg							
Styrene	µg/kg							
Tetrachloroethane, 1,1,1,2-	µg/kg							
Tetrachloroethane, 1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 12 of 40

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 13 of 40

	Location ID	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-208	NK-SB-208	NK-SB-208
Sample ID	1015509	1015510	1015563	1015563	1019303	1019304	1019304	1019304
Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
Sample Time	11:30	11:40	11:47	11:47	09:30	09:40	09:40	09:40
Sample Depth	10' - 12'	12' - 14'	14' - 15'	14' - 15'	0' - 2'	2' - 4'	2' - 4'	2' - 4'
Laboratory	LEA	LEA	AEL	LEA	LEA	AEL	AEL	LEA
Lab. Number	96-3190-039	96-3191-040	AEL96007308	96-3192-041	96-5209-045	AEL97002201		96-5211-050
Constituent	Units							
Date Metals Analyzed	-			07/10/1996				
Date Organics Analyzed	-	07/03/1996	07/03/1996	07/08/1996	07/03/1996	10/18/1996		10/18/1996
Date Physical Analyzed	-			07/18/1996			02/28/1997	
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg			5.33				
Arsenic (SPLP)	mg/L							
Barium	mg/kg			286				
Barium (SPLP)	mg/L							
Cadmium	mg/kg			<4.57				
Cadmium (SPLP)	mg/L							
Chromium	mg/kg			48.2				
Chromium (SPLP)	mg/L							
Lead	mg/kg			<30.5				
Lead (SPLP)	mg/L							
Mercury	mg/kg			<0.305				
Mercury (SPLP)	mg/L							
Nickel	mg/kg			43.1				
Nickel (SPLP)	mg/L							
Selenium	mg/kg			<1.52				
Selenium (SPLP)	mg/L							
Silver	mg/kg			<7.62				
Silver (SPLP)	mg/L							
Zinc	mg/kg			107				
Zinc (SPLP)	mg/L							
Dibromo-3-chloropropane, 1,2-	µg/kg							
Total Petroleum Hydrocarbons	mg/kg			<75.2				
pH	No Un							
pH of Soil	SU						6.7	

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 14 of 40

	Location ID	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-208	NK-SB-208	NK-SB-208
Sample ID	1015509	1015510	1015563	1015563	1019303	1019304	1019304	
Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
Sample Time	11:30	11:40	11:47	11:47	09:30	09:40	09:40	
Sample Depth	10' - 12'	12' - 14'	14' - 15'	14' - 15'	0' - 2'	2' - 4'	2' - 4'	
Laboratory	LEA	LEA	AEL	LEA	LEA	AEL	AEL	LEA
Lab. Number	96-3190-039	96-3191-040	AEL96007308	96-3192-041	96-5209-045	AEL97002201		96-5211-050
Constituent	Units							
Dichloro-2-butylene,1,4-trans-	µg/kg							
Acetone	µg/kg			<140				
Acetonitrile	µg/kg							
Acrolein	µg/kg			<68				
Acrylonitrile	µg/kg			<68				
Allyl Chloride	µg/kg							
Benzene	µg/kg			<27				
Benzene (screening)	µg/kg	<16	<17 nc		<15	<7		<8 nc
Bromobenzene	µg/kg			<27				
Bromoform	µg/kg			<27				
Carbon Disulfide	µg/kg			<27				
Carbon Tetrachloride	µg/kg			<27				
Chlorobenzene	µg/kg			<27				
Chlorodibromomethane	µg/kg			<27				
Chloroethane	µg/kg			<27				
Chloroethyl Vinyl Ether,2-	µg/kg			<27				
Chloroform	µg/kg			<27				
Chloroprene,beta-	µg/kg							
Chlorotoluene,o-	µg/kg			<27				
Chlorotoluene,p-	µg/kg			<27				
Dibromomethane	µg/kg			<27				
Dichlorobenzene,1,2-	µg/kg			<27				
Dichlorobenzene,1,3-	µg/kg			<27				
Dichlorobenzene,1,4-	µg/kg			<27				
Dichlorobromomethane	µg/kg			<27				
Dichlorodifluoromethane	µg/kg			<27				
Dichloroethane,1,1-	µg/kg			<27				
Dichloroethane,1,2-	µg/kg			<27				

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 15 of 40

	Location ID	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-17	NK-SB-208	NK-SB-208	NK-SB-208
Sample ID	1015509	1015510	1015563	1015563	1019303	1019304	1019304	
Sample Date	07/02/1996	07/02/1996	07/02/1996	07/02/1996	10/16/1996	10/16/1996	10/16/1996	
Sample Time	11:30	11:40	11:47	11:47	09:30	09:40	09:40	
Sample Depth	10' - 12'	12' - 14'	14' - 15'	14' - 15'	0' - 2'	2' - 4'	2' - 4'	
Laboratory	LEA	LEA	AEL	LEA	LEA	AEL	AEL	LEA
Lab. Number	96-3190-039	96-3191-040	AEL96007308	96-3192-041	96-5209-045	AEL97002201		96-5211-050
Constituent	Units							
Dichloroethylene, 1,1-	µg/kg			<27				
Dichloroethylene, 1,2-cis-	µg/kg			<27				
Dichloroethylene, 1,2-trans-	µg/kg			<27				
Dichloropropane, 1,2-	µg/kg			<27				
Dichloropropylene, 1,3-, NOS	µg/kg							
Dichloropropylene, 1,3-cis-	µg/kg			<27				
Dichloropropylene, 1,3-trans-	µg/kg			<27				
Dioxane, 1,4-	µg/kg							
Ethylbenzene	µg/kg			<27				
Ethylbenzene (screening)	µg/kg					<14		<17 nc
Ethylene Dibromide	µg/kg							
Ethylmethacrylate	µg/kg							
Hexanone, 2-	µg/kg			<68				
Iodomethane	µg/kg							
Isobutyl Alcohol	µg/kg							
Methacrylonitrile	µg/kg							
Methyl Bromide	µg/kg			<27				
Methyl Chloride	µg/kg			<27				
Methyl Ethyl Ketone	µg/kg			<68				
Methyl Methacrylate	µg/kg							
Methyl-2-pentanone, 4-	µg/kg			<68				
Methyl-tert-butyl Ether	µg/kg			<27				
Methylene Chloride	µg/kg			<27				
Propionitrile	µg/kg							
Styrene	µg/kg			<27				
Tetrachloroethane, 1,1,1,2-	µg/kg			<27				
Tetrachloroethane, 1,1,2,2-	µg/kg			<27				
Tetrachloroethylene	µg/kg			<27				

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 16 of 40

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 17 of 40

	Location ID	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-209	NK-SB-209
Sample ID	1019305	1019306	1019306	1019307	1019308	1019309	1019310	1019310
Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
Sample Time	09:50	10:00	10:00	10:10	10:20	10:50		11:00
Sample Depth	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'	0' - 2'		2' - 4'
Laboratory	LEA	AEL	LEA	LEA	LEA	LEA		AEL
Lab. Number	96-5212-051	AEL96011872	96-5213-052	96-5214-053	96-5215-054	96-5216-055		AEL97002202
Constituent	Units							
Date Metals Analyzed	-		10/23/1996					
Date Organics Analyzed	-	10/18/1996		10/18/1996	10/18/1996	10/18/1996	10/18/1996	
Date Physical Analyzed	-							02/28/1997
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg		<1.17					
Arsenic (SPLP)	mg/L							
Barium	mg/kg		110					
Barium (SPLP)	mg/L							
Cadmium	mg/kg		<3.51					
Cadmium (SPLP)	mg/L							
Chromium	mg/kg		5.84					
Chromium (SPLP)	mg/L							
Lead	mg/kg		<23.4					
Lead (SPLP)	mg/L							
Mercury	mg/kg		<0.234					
Mercury (SPLP)	mg/L							
Nickel	mg/kg		<11.7					
Nickel (SPLP)	mg/L							
Selenium	mg/kg		<1.17					
Selenium (SPLP)	mg/L							
Silver	mg/kg		<5.84					
Silver (SPLP)	mg/L							
Zinc	mg/kg		16.5					
Zinc (SPLP)	mg/L							
Dibromo-3-chloropropane, 1,2-	µg/kg							
Total Petroleum Hydrocarbons	mg/kg							
pH	No Un							
pH of Soil	SU							7.1

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 18 of 40

	Location ID	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-209	NK-SB-209
	Sample ID	1019305	1019306	1019306	1019307	1019308	1019309	1019310
	Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
	Sample Time	09:50	10:00	10:00	10:10	10:20	10:50	11:00
	Sample Depth	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'	0' - 2'	2' - 4'
	Laboratory	LEA	AEL	LEA	LEA	LEA	LEA	AEL
	Lab. Number	96-5212-051	AEL96011872	96-5213-052	96-5214-053	96-5215-054	96-5216-055	AEL97002202
Constituent	Units							
Dichloro-2-butylene, 1,4-trans-	µg/kg							
Acetone	µg/kg							
Acetonitrile	µg/kg							
Acrolein	µg/kg							
Acrylonitrile	µg/kg							
Allyl Chloride	µg/kg							
Benzene	µg/kg							
Benzene (screening)	µg/kg	<8		<8	<8	<8	<8	
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether, 2-	µg/kg							
Chloroform	µg/kg							
Chloroprene,beta-	µg/kg							
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene,1,2-	µg/kg							
Dichlorobenzene,1,3-	µg/kg							
Dichlorobenzene,1,4-	µg/kg							
Dichlorobromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane,1,1-	µg/kg							
Dichloroethane,1,2-	µg/kg							

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 19 of 40

	Location ID	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-208	NK-SB-209	NK-SB-209
	Sample ID	1019305	1019306	1019306	1019307	1019308	1019309	1019310
	Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
	Sample Time	09:50	10:00	10:00	10:10	10:20	10:50	11:00
	Sample Depth	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'	0' - 2'	2' - 4'
	Laboratory	LEA	AEL	LEA	LEA	LEA	LEA	AEL
	Lab. Number	96-5212-051	AEL96011872	96-5213-052	96-5214-053	96-5215-054	96-5216-055	AEL97002202
Constituent	Units							
Dichloroethylene,1,1-	µg/kg							
Dichloroethylene,1,2-cis-	µg/kg							
Dichloroethylene,1,2-trans-	µg/kg							
Dichloropropane,1,2-	µg/kg							
Dichloropropylene,1,3-, NOS	µg/kg							
Dichloropropylene,1,3-cis-	µg/kg							
Dichloropropylene,1,3-trans-	µg/kg							
Dioxane,1,4-	µg/kg							
Ethylbenzene	µg/kg							
Ethylbenzene (screening)	µg/kg	<16		<17	<16	<16	<16	
Ethylene Dibromide	µg/kg							
Ethylmethacrylate	µg/kg							
Hexanone,2-	µg/kg							
Iodomethane	µg/kg							
Isobutyl Alcohol	µg/kg							
Methacrylonitrile	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl Methacrylate	µg/kg							
Methyl-2-pentanone,4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Propionitrile	µg/kg							
Styrene	µg/kg							
Tetrachloroethane,1,1,1,2-	µg/kg							
Tetrachloroethane,1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 20 of 40

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 21 of 40

	Location ID	NK-SB-209						
	Sample ID	1019310	1019311	1019312	1019312	1019313	1019314	1019315
	Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
	Sample Time	11:00	11:10	11:20	11:20	11:30	11:40	11:50
	Sample Depth	2' - 4'	4' - 6'	6' - 8'	6' - 8'	6' - 8'	8' - 10'	10' - 12'
	Laboratory	LEA	LEA	AEL	LEA	LEA	LEA	LEA
	Lab. Number	96-5217-056	96-5218-057	AEL96011873	96-5220-059	96-5221-060	96-5223-062	96-5224-063
Constituent	Units							
Date Metals Analyzed	-			10/23/1996				
Date Organics Analyzed	-	10/18/1996	10/18/1996		10/18/1996	10/18/1996	10/18/1996	10/18/1996
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg			<1.18				
Arsenic (SPLP)	mg/L							
Barium	mg/kg			31				
Barium (SPLP)	mg/L							
Cadmium	mg/kg			<3.54				
Cadmium (SPLP)	mg/L							
Chromium	mg/kg			<5.9				
Chromium (SPLP)	mg/L							
Lead	mg/kg			<23.6				
Lead (SPLP)	mg/L							
Mercury	mg/kg			<0.236				
Mercury (SPLP)	mg/L							
Nickel	mg/kg			<11.8				
Nickel (SPLP)	mg/L							
Selenium	mg/kg			<1.18				
Selenium (SPLP)	mg/L							
Silver	mg/kg			<5.9				
Silver (SPLP)	mg/L							
Zinc	mg/kg			14.3				
Zinc (SPLP)	mg/L							
Dibromo-3-chloropropane, 1,2-	µg/kg							
Total Petroleum Hydrocarbons	mg/kg							
pH	No Un							
pH of Soil	SU							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 22 of 40

	Location ID	NK-SB-209	NK-SB-209	NK-SB-209	NK-SB-209	NK-SB-209	NK-SB-209	NK-SB-209
Sample ID	1019310	1019311	1019312	1019312	1019313	1019314	1019315	1019315
Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
Sample Time	11:00	11:10	11:20	11:20	11:30	11:40	11:50	
Sample Depth	2' - 4'	4' - 6'	6' - 8'	6' - 8'	6' - 8'	8' - 10'	10' - 12'	
Laboratory	LEA	LEA	AEL	LEA	LEA	LEA	LEA	
Lab. Number	96-5217-056	96-5218-057	AEL96011873	96-5220-059	96-5221-060	96-5223-062	96-5224-063	
Constituent	Units							
Dichloro-2-butylene,1,4-trans-	µg/kg							
Acetone	µg/kg							
Acetonitrile	µg/kg							
Acrolein	µg/kg							
Acrylonitrile	µg/kg							
Allyl Chloride	µg/kg							
Benzene	µg/kg							
Benzene (screening)	µg/kg	<8	<7		<8	<7	<8	<8
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether,2-	µg/kg							
Chloroform	µg/kg							
Chloroprene,beta-	µg/kg							
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene,1,2-	µg/kg							
Dichlorobenzene,1,3-	µg/kg							
Dichlorobenzene,1,4-	µg/kg							
Dichlorobromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane,1,1-	µg/kg							
Dichloroethane,1,2-	µg/kg							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 23 of 40

	Location ID	NK-SB-209	NK-SB-209	NK-SB-209	NK-SB-209	NK-SB-209	NK-SB-209	NK-SB-209
Sample ID	1019310	1019311	1019312	1019312	1019313	1019314	1019315	1019315
Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996
Sample Time	11:00	11:10	11:20	11:20	11:30	11:40	11:50	
Sample Depth	2' - 4'	4' - 6'	6' - 8'	6' - 8'	6' - 8'	8' - 10'	10' - 12'	
Laboratory	LEA	LEA	AEL	LEA	LEA	LEA	LEA	
Lab. Number	96-5217-056	96-5218-057	AEL96011873	96-5220-059	96-5221-060	96-5223-062	96-5224-063	
Constituent	Units							
Dichloroethylene, 1,1-	µg/kg							
Dichloroethylene, 1,2-cis-	µg/kg							
Dichloroethylene, 1,2-trans-	µg/kg							
Dichloroproppane, 1,2-	µg/kg							
Dichloropropylene, 1,3-, NOS	µg/kg							
Dichloropropylene, 1,3-cis-	µg/kg							
Dichloropropylene, 1,3-trans-	µg/kg							
Dioxane, 1,4-	µg/kg							
Ethylbenzene	µg/kg							
Ethylbenzene (screening)	µg/kg	<16	<14		<16	<14	<16	<17
Ethylene Dibromide	µg/kg							
Ethylmethacrylate	µg/kg							
Hexanone, 2-	µg/kg							
Iodomethane	µg/kg							
Isobutyl Alcohol	µg/kg							
Methacrylonitrile	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl Methacrylate	µg/kg							
Methyl-2-pentanone, 4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Propionitrile	µg/kg							
Styrene	µg/kg							
Tetrachloroethane, 1,1,1,2-	µg/kg							
Tetrachloroethane, 1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 24 of 40

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 25 of 40

	Location ID	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-341
Sample ID	1019316	1019317	1019317	1019318	1019318	1019319	1019319	1637999
Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	07/16/1997
Sample Time	12:50	13:00	13:00	13:10	13:10	13:20	13:20	13:00
Sample Depth	0' - 2'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'	6' - 8'	0' - 2'
Laboratory	LEA	AEL	LEA	AEL	LEA	LEA	LEA	LEA
Lab. Number	96-5225-064	AEL97002203	96-5226-065	AEL96011874	96-5227-066	96-5228-067	25-1377-787	
Constituent	Units							
Date Metals Analyzed	-				10/23/1996			
Date Organics Analyzed	-	10/18/1996		10/18/1996		10/18/1996	10/18/1996	07/17/1997
Date Physical Analyzed	-		02/28/1997					
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg				1.3			
Arsenic (SPLP)	mg/L							
Barium	mg/kg				55.7			
Barium (SPLP)	mg/L							
Cadmium	mg/kg				<3.48			
Cadmium (SPLP)	mg/L							
Chromium	mg/kg				<5.8			
Chromium (SPLP)	mg/L							
Lead	mg/kg				<23.2			
Lead (SPLP)	mg/L							
Mercury	mg/kg				<0.232			
Mercury (SPLP)	mg/L							
Nickel	mg/kg				<11.6			
Nickel (SPLP)	mg/L							
Selenium	mg/kg				<1.16			
Selenium (SPLP)	mg/L							
Silver	mg/kg				<5.8			
Silver (SPLP)	mg/L							
Zinc	mg/kg				12.5			
Zinc (SPLP)	mg/L							
Dibromo-3-chloropropane, 1,2-	µg/kg							
Total Petroleum Hydrocarbons	mg/kg							
pH	No Un							
pH of Soil	SU		5.0					

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 26 of 40

	Location ID	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-341
Sample ID	1019316	1019317	1019317	1019318	1019318	1019319	1019319	1637999
Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	07/16/1997
Sample Time	12:50	13:00	13:00	13:10	13:10	13:20	13:00	
Sample Depth	0' - 2'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'	0' - 2'	
Laboratory	LEA	AEL	LEA	AEL	LEA	LEA	LEA	
Lab. Number	96-5225-064	AEL97002203	96-5226-065	AEL96011874	96-5227-066	96-5228-067	25-1377-787	
Constituent	Units							
Dichloro-2-butylene, 1,4-trans-	µg/kg							
Acetone	µg/kg							
Acetonitrile	µg/kg							
Acrolein	µg/kg							
Acrylonitrile	µg/kg							
Allyl Chloride	µg/kg							
Benzene	µg/kg							
Benzene (screening)	µg/kg	<7		<7		<7	<7	<7
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether, 2-	µg/kg							
Chloroform	µg/kg							
Chloroprene,beta-	µg/kg							
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene, 1,2-	µg/kg							
Dichlorobenzene, 1,3-	µg/kg							
Dichlorobenzene, 1,4-	µg/kg							
Dichlorobromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane, 1,1-	µg/kg							
Dichloroethane, 1,2-	µg/kg							

Notes: 1. Printed on 08/03/1999

LeA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 27 of 40

	Location ID	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-210	NK-SB-341
Sample ID	1019316	1019317	1019317	1019318	1019318	1019319	1019319	1637999
Sample Date	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	10/16/1996	07/16/1997
Sample Time	12:50	13:00	13:00	13:10	13:10	13:20	13:20	13:00
Sample Depth	0' - 2'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	6' - 8'	6' - 8'	0' - 2'
Laboratory	LEA	AEL	LEA	AEL	LEA	LEA	LEA	LEA
Lab. Number	96-5225-064	AEL97002203	96-5226-065	AEL96011874	96-5227-066	96-5228-067	96-5228-067	25-1377-787
Constituent	Units							
Dichloroethylene, 1,1-	µg/kg							
Dichloroethylene, 1,2-cis-	µg/kg							
Dichloroethylene, 1,2-trans-	µg/kg							
Dichloropropane, 1,2-	µg/kg							
Dichloropropylene, 1,3-, NOS	µg/kg							
Dichloropropylene, 1,3-cis-	µg/kg							
Dichloropropylene, 1,3-trans-	µg/kg							
Dioxane, 1,4-	µg/kg							
Ethylbenzene	µg/kg							
Ethylbenzene (screening)	µg/kg	<16		<15		<14	<14	<11
Ethylene Dibromide	µg/kg							
Ethylmethacrylate	µg/kg							
Hexanone, 2-	µg/kg							
Iodomethane	µg/kg							
Isobutyl Alcohol	µg/kg							
Methacrylonitrile	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl Methacrylate	µg/kg							
Methyl-2-pentanone, 4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Propionitrile	µg/kg							
Styrene	µg/kg							
Tetrachloroethane, 1,1,1,2-	µg/kg							
Tetrachloroethane, 1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 28 of 40

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 29 of 40

	Location ID	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341
Sample ID	1638000	1638000	1638001	1638001	1638002	1638002	1638002	1638002
Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997
Sample Time	13:05	13:05	13:10	13:10	13:20	13:20	13:20	13:20
Sample Depth	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	4' - 6'	4' - 6'
Laboratory	LEA	QUAN	LEA	QUAN	LEA	QUAN	QUAN	QUAN
Lab. Number	25-1378-788	A7G210123002	25-1379-789	A7G210123003	25-1380-790	A7G210123004	X7G210123004	
Constituent	Units							
Date Metals Analyzed	-							
Date Organics Analyzed	-	07/17/1997		07/17/1997		07/17/1997		
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg							
Arsenic (SPLP)	mg/L							
Barium	mg/kg							
Barium (SPLP)	mg/L							
Cadmium	mg/kg							
Cadmium (SPLP)	mg/L							
Chromium	mg/kg							
Chromium (SPLP)	mg/L							
Lead	mg/kg							
Lead (SPLP)	mg/L							
Mercury	mg/kg							
Mercury (SPLP)	mg/L							
Nickel	mg/kg							
Nickel (SPLP)	mg/L							
Selenium	mg/kg							
Selenium (SPLP)	mg/L							
Silver	mg/kg							
Silver (SPLP)	mg/L							
Zinc	mg/kg							
Zinc (SPLP)	mg/L							
Dibromo-3-chloropropane, 1,2-	µg/kg							
Total Petroleum Hydrocarbons	mg/kg							
pH	No Un		6.7		7.2		7.0	7.1
pH of Soil	SU							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 30 of 40

	Location ID	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341
	Sample ID	1638000	1638000	1638001	1638001	1638002	1638002	1638002
	Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997
	Sample Time	13:05	13:05	13:10	13:10	13:20	13:20	13:20
	Sample Depth	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	4' - 6'
	Laboratory	LEA	QUAN	LEA	QUAN	LEA	QUAN	QUAN
	Lab. Number	25-1378-788	A7G210123002	25-1379-789	A7G210123003	25-1380-790	A7G210123004	X7G210123004
Constituent	Units							
Dichloro-2-butylene, 1,4-trans-	µg/kg							
Acetone	µg/kg							
Acetonitrile	µg/kg							
Acrolein	µg/kg							
Acrylonitrile	µg/kg							
Allyl Chloride	µg/kg							
Benzene	µg/kg							
Benzene (screening)	µg/kg	<7		<7			<8	
Bromobenzene	µg/kg							
Bromoform	µg/kg							
Carbon Disulfide	µg/kg							
Carbon Tetrachloride	µg/kg							
Chlorobenzene	µg/kg							
Chlorodibromomethane	µg/kg							
Chloroethane	µg/kg							
Chloroethyl Vinyl Ether,2-	µg/kg							
Chloroform	µg/kg							
Chloroprene,beta-	µg/kg							
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg							
Dichlorobenzene,1,2-	µg/kg							
Dichlorobenzene,1,3-	µg/kg							
Dichlorobenzene,1,4-	µg/kg							
Dichlorobromomethane	µg/kg							
Dichlorodifluoromethane	µg/kg							
Dichloroethane,1,1-	µg/kg							
Dichloroethane,1,2-	µg/kg							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 31 of 40

	Location ID	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341
	Sample ID	1638000	1638000	1638001	1638001	1638002	1638002	1638002
	Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997
	Sample Time	13:05	13:05	13:10	13:10	13:20	13:20	13:20
	Sample Depth	2' - 4'	2' - 4'	2' - 4'	2' - 4'	4' - 6'	4' - 6'	4' - 6'
	Laboratory	LEA	QUAN	LEA	QUAN	LEA	QUAN	QUAN
	Lab. Number	25-1378-788	A7G210123002	25-1379-789	A7G210123003	25-1380-790	A7G210123004	X7G210123004
Constituent	Units							
Dichloroethylene,1,1-	µg/kg							
Dichloroethylene,1,2-cis-	µg/kg							
Dichloroethylene,1,2-trans-	µg/kg							
Dichloropropene,1,2-	µg/kg							
Dichloropropylene,1,3-, NOS	µg/kg							
Dichloropropylene,1,3-cis-	µg/kg							
Dichloropropylene,1,3-trans-	µg/kg							
Dioxane,1,4-	µg/kg							
Ethylbenzene	µg/kg							
Ethylbenzene (screening)	µg/kg	<10		<11		<11		
Ethylene Dibromide	µg/kg							
Ethylmethacrylate	µg/kg							
Hexanone,2-	µg/kg							
Iodomethane	µg/kg							
Isobutyl Alcohol	µg/kg							
Methacrylonitrile	µg/kg							
Methyl Bromide	µg/kg							
Methyl Chloride	µg/kg							
Methyl Ethyl Ketone	µg/kg							
Methyl Methacrylate	µg/kg							
Methyl-2-pentanone,4-	µg/kg							
Methyl-tert-butyl Ether	µg/kg							
Methylene Chloride	µg/kg							
Propionitrile	µg/kg							
Styrene	µg/kg							
Tetrachloroethane,1,1,1,2-	µg/kg							
Tetrachloroethane,1,1,2,2-	µg/kg							
Tetrachloroethylene	µg/kg							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 32 of 40

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 33 of 40

	Location ID	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-342	NK-SB-342	NK-SB-342
Sample ID	1638003	1638003	1638004	1638005	1638006	1638007	1638007	1638007
Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997
Sample Time	13:30	13:30	13:35	13:40	14:25	14:30	14:30	
Sample Depth	6' - 8'	6' - 8'	8' - 10'	10' - 12'	0' - 2'	2' - 4'	2' - 4'	
Laboratory	LEA	QUAN	LEA	LEA	LEA	LEA	LEA	QUAN
Lab. Number	25-1381-791	A7G210123005	25-1382-792	25-1383-793	25-1384-794	25-1385-795	25-1385-795	A7G210123009
Constituent	Units							
Date Metals Analyzed	-		07/23/1997					
Date Organics Analyzed	-	07/17/1997	07/29/1997	07/17/1997	07/17/1997	07/17/1997	07/17/1997	
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg		<1.3 U					
Arsenic (SPLP)	mg/L							
Barium	mg/kg		36.5					
Barium (SPLP)	mg/L							
Cadmium	mg/kg		<0.13 U					
Cadmium (SPLP)	mg/L							
Chromium	mg/kg		4.8					
Chromium (SPLP)	mg/L							
Lead	mg/kg		1.9					
Lead (SPLP)	mg/L							
Mercury	mg/kg		<0.19 U					
Mercury (SPLP)	mg/L							
Nickel	mg/kg		7.5					
Nickel (SPLP)	mg/L							
Selenium	mg/kg		<1.0 U					
Selenium (SPLP)	mg/L							
Silver	mg/kg		<3.8 U					
Silver (SPLP)	mg/L							
Zinc	mg/kg		<19.1 U					
Zinc (SPLP)	mg/L							
Dibromo-3-chloropropane, 1,2-	µg/kg		<6.4 U					
Total Petroleum Hydrocarbons	mg/kg							
pH	No Un		4.8					6.4
pH of Soil	SU							

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 34 of 40

	Location ID	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-342	NK-SB-342	NK-SB-342
Sample ID	1638003	1638003	1638004	1638005	1638006	1638007	1638007	1638007
Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997
Sample Time	13:30	13:30	13:35	13:40	14:25	14:30	14:30	
Sample Depth	6' - 8'	6' - 8'	8' - 10'	10' - 12'	0' - 2'	2' - 4'	2' - 4'	
Laboratory	LEA	QUAN	LEA	LEA	LEA	LEA	LEA	QUAN
Lab. Number	25-1381-791	A7G210123005	25-1382-792	25-1383-793	25-1384-794	25-1385-795	25-1385-795	A7G210123009
Constituent	Units							
Dichloro-2-butylene,1,4-trans-	µg/kg		<6.4 U J					
Acetone	µg/kg		15 J					
Acetonitrile	µg/kg		<64 U R					
Acrolein	µg/kg		<64 U					
Acrylonitrile	µg/kg		<130 U					
Allyl Chloride	µg/kg		<130 U					
Benzene	µg/kg		<6.4 U					
Benzene (screening)	µg/kg	<7		<8	<7	<8	<7	
Bromobenzene	µg/kg							
Bromoform	µg/kg		<6.4 U					
Carbon Disulfide	µg/kg		<6.4 U					
Carbon Tetrachloride	µg/kg		<6.4 U					
Chlorobenzene	µg/kg		<6.4 U					
Chlorodibromomethane	µg/kg		<6.4 U					
Chloroethane	µg/kg		<13 U					
Chloroethyl Vinyl Ether,2-	µg/kg							
Chloroform	µg/kg		<6.4 U					
Chloroprene,beta-	µg/kg		<6.4 U					
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg		<6.4 U					
Dichlorobenzene,1,2-	µg/kg							
Dichlorobenzene,1,3-	µg/kg							
Dichlorobenzene,1,4-	µg/kg							
Dichlorobromomethane	µg/kg		<6.4 U					
Dichlorodifluoromethane	µg/kg		<6.4 U					
Dichloroethane,1,1-	µg/kg		<6.4 U					
Dichloroethane,1,2-	µg/kg		<6.4 U					

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 35 of 40

	Location ID	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-341	NK-SB-342	NK-SB-342	NK-SB-342
	Sample ID	1638003	1638003	1638004	1638005	1638006	1638007	1638007
	Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997
	Sample Time	13:30	13:30	13:35	13:40	14:25	14:30	14:30
	Sample Depth	6' - 8'	6' - 8'	8' - 10'	10' - 12'	0' - 2'	2' - 4'	2' - 4'
	Laboratory	LEA	QUAN	LEA	LEA	LEA	LEA	QUAN
	Lab. Number	25-1381-791	A7G210123005	25-1382-792	25-1383-793	25-1384-794	25-1385-795	A7G210123009
Constituent	Units							
Dichloroethylene, 1,1-	µg/kg		<6.4 U					
Dichloroethylene, 1,2-cis-	µg/kg		<6.4 U					
Dichloroethylene, 1,2-trans-	µg/kg		<6.4 U					
Dichloropropane, 1,2-	µg/kg		<6.4 U					
Dichloropropylene, 1,3-, NOS	µg/kg		<6.4 U					
Dichloropropylene, 1,3-cis-	µg/kg							
Dichloropropylene, 1,3-trans-	µg/kg							
Dioxane, 1,4-	µg/kg		<190 U R					
Ethylbenzene	µg/kg		<6.4 U					
Ethylbenzene (screening)	µg/kg	<10		<11	<10	<11	<10	
Ethylene Dibromide	µg/kg		<6.4 U					
Ethylmethacrylate	µg/kg		<6.4 U					
Hexanone, 2-	µg/kg		<64 U					
Iodomethane	µg/kg		<6.4 U					
Isobutyl Alcohol	µg/kg		<64 U R					
Methacrylonitrile	µg/kg		<6.4 U					
Methyl Bromide	µg/kg		<13 U					
Methyl Chloride	µg/kg		<13 U					
Methyl Ethyl Ketone	µg/kg		<130 U					
Methyl Methacrylate	µg/kg		<6.4 U					
Methyl-2-pentanone, 4-	µg/kg		<13 U					
Methyl-tert-butyl Ether	µg/kg		<6.4 U					
Methylene Chloride	µg/kg		3.1 J					
Propionitrile	µg/kg		<26 U					
Styrene	µg/kg		<6.4 U					
Tetrachloroethane, 1,1,1,2-	µg/kg		<6.4 U					
Tetrachloroethane, 1,1,2,2-	µg/kg		<6.4 U					
Tetrachloroethylene	µg/kg		<6.4 U					

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 36 of 40

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 37 of 40

	Location ID	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	
	Sample ID	1638008	1638008	1638009	1638009	1638010	1638011	
	Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	
	Sample Time	14:40	14:40	14:45	14:45	14:55	15:00	
	Sample Depth	4' - 6'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'	
	Laboratory	LEA	QUAN	LEA	QUAN	LEA	LEA	
	Lab. Number	25-1386-796	A7G210123010	25-1387-797	A7G210123011	25-1388-798	25-1389-799	
Constituent	Units							
Date Metals Analyzed	-				07/23/1997			
Date Organics Analyzed	-	07/17/1997		07/17/1997	07/29/1997	07/17/1997	07/17/1997	
Date Physical Analyzed	-							
Date of Metals SPLP Analysis	-							
Arsenic	mg/kg				<1.3 U			
Arsenic (SPLP)	mg/L							
Barium	mg/kg				37.7			
Barium (SPLP)	mg/L							
Cadmium	mg/kg				<0.13 U			
Cadmium (SPLP)	mg/L							
Chromium	mg/kg				5.7			
Chromium (SPLP)	mg/L							
Lead	mg/kg				1.9			
Lead (SPLP)	mg/L							
Mercury	mg/kg				<0.19 U			
Mercury (SPLP)	mg/L							
Nickel	mg/kg				6.1			
Nickel (SPLP)	mg/L							
Selenium	mg/kg				<1.0 U			
Selenium (SPLP)	mg/L							
Silver	mg/kg				<3.8 U			
Silver (SPLP)	mg/L							
Zinc	mg/kg				<18.9 U			
Zinc (SPLP)	mg/L							
Dibromo-3-chloropropane,1,2-	µg/kg				<6.3 U			
Total Petroleum Hydrocarbons	mg/kg							
pH	No Un		5.5		5.5			
pH of Soil	SU							

Notes: 1. Printed on 08/03/1999

LEA

**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 38 of 40

	Location ID	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	
Sample ID	1638008	1638008	1638009	1638009	1638010	1638011		
Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997		
Sample Time	14:40	14:40	14:45	14:45	14:55	15:00		
Sample Depth	4' - 6'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'		
Laboratory	LEA	QUAN	LEA	QUAN	LEA	LEA		
Lab. Number	25-1386-796	A7G210123010	25-1387-797	A7G210123011	25-1388-798	25-1389-799		
Constituent	Units							
Dichloro-2-butylene, 1,4-trans-	µg/kg				<6.3 U J			
Acetone	µg/kg				15 J			
Acetonitrile	µg/kg				<63 U R			
Acrolein	µg/kg				<63 U			
Acrylonitrile	µg/kg				<130 U			
Allyl Chloride	µg/kg				<130 U			
Benzene	µg/kg				<6.3 U			
Benzene (screening)	µg/kg	<7		<7		<7	<6	
Bromobenzene	µg/kg							
Bromoform	µg/kg				<6.3 U			
Carbon Disulfide	µg/kg				<6.3 U			
Carbon Tetrachloride	µg/kg				<6.3 U			
Chlorobenzene	µg/kg				<6.3 U			
Chlorodibromomethane	µg/kg				<6.3 U			
Chloroethane	µg/kg				<13 U			
Chloroethyl Vinyl Ether, 2-	µg/kg							
Chloroform	µg/kg				<6.3 U			
Chloroprene,beta-	µg/kg				<6.3 U			
Chlorotoluene,o-	µg/kg							
Chlorotoluene,p-	µg/kg							
Dibromomethane	µg/kg				<6.3 U			
Dichlorobenzene, 1,2-	µg/kg							
Dichlorobenzene, 1,3-	µg/kg							
Dichlorobenzene, 1,4-	µg/kg							
Dichlorobromomethane	µg/kg				<6.3 U			
Dichlorodifluoromethane	µg/kg				<6.3 U			
Dichloroethane, 1,1-	µg/kg				<6.3 U			
Dichloroethane, 1,2-	µg/kg				<6.3 U			

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 39 of 40

	Location ID	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	NK-SB-342	
	Sample ID	1638008	1638008	1638009	1638009	1638010	1638011	
	Sample Date	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	07/16/1997	
	Sample Time	14:40	14:40	14:45	14:45	14:55	15:00	
	Sample Depth	4' - 6'	4' - 6'	6' - 8'	6' - 8'	8' - 10'	10' - 12'	
	Laboratory	LEA	QUAN	LEA	QUAN	LEA	LEA	
	Lab. Number	25-1386-796	A7G210123010	25-1387-797	A7G210123011	25-1388-798	25-1389-799	
Constituent	Units							
Dichloroethylene, 1,1-	µg/kg				<6.3 U			
Dichloroethylene, 1,2-cis-	µg/kg				<6.3 U			
Dichloroethylene, 1,2-trans-	µg/kg				<6.3 U			
Dichloropropane, 1,2-	µg/kg				<6.3 U			
Dichloropropylene, 1,3-, NOS	µg/kg				<6.3 U			
Dichloropropylene, 1,3-cis-	µg/kg							
Dichloropropylene, 1,3-trans-	µg/kg							
Dioxane, 1,4-	µg/kg				<190 U R			
Ethylbenzene	µg/kg				<6.3 U			
Ethylbenzene (screening)	µg/kg	<10		<10		<10	<9	
Ethylene Dibromide	µg/kg				<6.3 U			
Ethylmethacrylate	µg/kg				<6.3 U			
Hexanone, 2-	µg/kg				<63 U			
Iodomethane	µg/kg				<6.3 U			
Isobutyl Alcohol	µg/kg				<63 U R			
Methacrylonitrile	µg/kg				<6.3 U			
Methyl Bromide	µg/kg				<13 U			
Methyl Chloride	µg/kg				<13 U			
Methyl Ethyl Ketone	µg/kg				<130 U			
Methyl Methacrylate	µg/kg				<6.3 U			
Methyl-2-pentanone, 4-	µg/kg				<13 U			
Methyl-tert-butyl Ether	µg/kg				<6.3 U			
Methylene Chloride	µg/kg				7.5			
Propionitrile	µg/kg				<25 U			
Styrene	µg/kg				<6.3 U			
Tetrachloroethane, 1,1,1,2-	µg/kg				<6.3 U			
Tetrachloroethane, 1,1,2,2-	µg/kg				<6.3 U			
Tetrachloroethylene	µg/kg				<6.3 U			

Notes: 1. Printed on 08/03/1999



**Table 3**  
**SUMMARY OF ANALYTICAL RESULTS - SOIL**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 40 of 40

Notes: 1. Printed on 08/03/1999



**Table 4**

DRAFT

**SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS) - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

Page 1 of 1

Notes: 1. Only Detects Shown  
2. Printed on 07/21/99



**Table 5**  
**SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 1 of 3

	Location ID	NK-SB-16	NK-SB-17	NK-SB-208	NK-SB-209	NK-SB-210	NK-SB-341	NK-SB-342
	Sample ID	1015671	1015669	1019263	1019264	1019265	1638020	1638021
	Sample Date	07/03/1996	07/03/1996	10/16/1996	10/16/1996	10/16/1996	07/16/1997	07/16/1997
	Sample Time	11:50	11:15	10:35	12:00	13:50	13:45	14:45
	Sample Depth	5' - 7'	5' - 7'	7' - 9'	7' - 9'	4.5' - 6.5'	4' - 8'	4' - 8'
	Laboratory	AEL	AEL	AEL	AEL	AEL	QUAN	QUAN
	Lab. Number	AEL96007377	AEL96007376	AEL96011735	AEL96011736	AEL96011737	A7G210123017	A7G210123018
Constituent	Units							
Date Metals Analyzed	-	07/17/1996	07/17/1996	10/22/1996	10/22/1996	10/22/1996	08/05/1997	08/05/1997
Date Organics Analyzed	-	07/10/1996	07/10/1996				07/30/1997	07/30/1997
Date Physical Analyzed	-	07/16/1996	07/16/1996					
pH (Liquid)	No Un						5.7 J	5.6 J
Arsenic	mg/L	<0.010	<0.010	<0.004	<0.004	<0.004	0.0146	0.0206
Barium	mg/L	0.055	0.034	0.108	0.058	0.069	0.779 L J	0.797
Cadmium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0050 U	<0.0050 U
Chromium	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.0584	0.216
Lead	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0181	0.0657
Mercury	mg/L	<0.0010	<0.0010	<0.0004	<0.0004	<0.0004	<0.00020 U	<0.00020 U
Nickel	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	0.0611	0.121
Selenium	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0050 U	<0.0050 U
Silver	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100 U	<0.0100 U
Zinc	mg/L	0.156	0.299	0.090	0.012	0.085	0.3 L J	3.18
Dibromo-3-chloropropane,1,2-	µg/L						<5.0 U	<5.0 U
Total Petroleum Hydrocarbons	mg/L	<1.0	<1.0					
Dichloro-2-butylene,1,4-trans-	µg/L						<5.0 U	<5.0 U
Acetone	µg/L	<50	<100				<100 U R	<100 U R
Acrolein	µg/L	<10	<10				<20 U R	<20 U R
Acrylonitrile	µg/L	<10	<10				<20 U	<20 U
Allyl Chloride	µg/L						<100 U	<100 U
Benzene	µg/L	<4.0	<4.0				<1.0 U	<1.0 U
Bromobenzene	µg/L	<4.0	<4.0					
Bromoform	µg/L	<4.0	<4.0				<4.0 U	<4.0 U
Carbon Disulfide	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Carbon Tetrachloride	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Chlorobenzene	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Chlorodibromomethane	µg/L	<4.0	<4.0				<0.50 U	<0.50 U

Notes: 1. Printed on 07/21/99



**Table 5**  
**SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

**DRAFT**

Page 2 of 3

	Location ID	NK-SB-16	NK-SB-17	NK-SB-208	NK-SB-209	NK-SB-210	NK-SB-341	NK-SB-342
	Sample ID	1015671	1015669	1019263	1019264	1019265	1638020	1638021
	Sample Date	07/03/1996	07/03/1996	10/16/1996	10/16/1996	10/16/1996	07/16/1997	07/16/1997
	Sample Time	11:50	11:15	10:35	12:00	13:50	13:45	14:45
	Sample Depth	5' - 7'	5' - 7'	7' - 9'	7' - 9'	4.5' - 6.5'	4' - 8'	4' - 8'
	Laboratory	AEL	AEL	AEL	AEL	AEL	QUAN	QUAN
	Lab. Number	AEL96007377	AEL96007376	AEL96011735	AEL96011736	AEL96011737	A7G210123017	A7G210123018
Constituent	Units							
Chloroethane	µg/L	<4.0	<4.0				<10 U	<10 U
Chloroethyl Vinyl Ether,2-	µg/L	<4.0	<4.0					
Chloroform	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Chloroprene,beta-	µg/L						<5.0 U	<5.0 U
Chlorotoluene,o-	µg/L	<4.0	<4.0					
Chlorotoluene,p-	µg/L	<4.0	<4.0					
Dibromomethane	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Dichlorobenzene,1,2-	µg/L	<4.0	<4.0					
Dichlorobenzene,1,3-	µg/L	<4.0	<4.0					
Dichlorobenzene,1,4-	µg/L	<4.0	<4.0					
Dichlorobromomethane	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Dichlorodifluoromethane	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Dichloroethane,1,1-	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Dichloroethane,1,2-	µg/L	<4.0	<4.0				<1.0 U	<1.0 U
Dichloroethylene,1,1-	µg/L	<4.0	<4.0				<1.0 U	<1.0 U
Dichloroethylene,1,2-cis-	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Dichloroethylene,1,2-trans-	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Dichloropropane,1,2-	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Dichloropropylene,1,3-, NOS	µg/L						<5.0 U	<5.0 U
Dichloropropylene,1,3-cis-	µg/L	<4.0	<4.0				<1.0 U	<1.0 U
Dichloropropylene,1,3-trans-	µg/L	<4.0	<4.0				<1.0 U	<1.0 U
Dioxane,1,4-	µg/L						<150 U R	<150 U R
Ethylbenzene	µg/L	<4.0	<4.0				<5.0 U	<5.0 U
Ethylene Dibromide	µg/L						<0.50 U	<0.50 U
Ethylmethacrylate	µg/L						<5.0 U	<5.0 U
Hexanone,2-	µg/L	<10	<10				<50 U	<50 U
Iodomethane	µg/L						<5.0 U	<5.0 U
Isobutyl Alcohol	µg/L						<50 U R	<50 U R

Notes: 1. Printed on 07/21/99



**Table 5**  
**SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

DRAFT

Page 3 of 3

Notes: 1. Printed on 07/21/99



**Table 6** **DRAFT**  
**GROUNDWATER EXCEEDANCES OF THE SURFACE WATER PROTECTION CRITERIA**  
**P&W East Hartford: Explosives Storage Area - Chemical Storage Building**

Page 1 of 1

Notes: 1. Only Exceedances Shown

2. Printed on 07/21/99



## **DRAWINGS**

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID # 2669**

**Facility Name: PRATT & WHITNEY - MAIN STREET**

**Facility ID#: CTD990672081**

**Phase Classification: R-5**

**Purpose of Target Sheet:**

**Oversized (in Site File)**       **Oversized (in Map Drawer)**

**Page(s) Missing (Please Specify Below)**

**Privileged**       **Other (Provide Purpose Below)**

**Description of Oversized Material, if applicable:**

**DRAWING 1: SOIL INVESTIGATIONS, EXPLOSIVE  
CHEMICAL STORAGE BUILDING, LOCATIONS AND  
CONSTITUENTS MAP**

**Map**     **Photograph**     **Other (Specify Below)**

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID # 2669**

**Facility Name: PRATT & WHITNEY - MAIN STREET**

**Facility ID#: CTD990672081**

**Phase Classification: R-5**

**Purpose of Target Sheet:**

**Oversized (in Site File)**       **Oversized (in Map Drawer)**

**Page(s) Missing (Please Specify Below)**

**Privileged**       **Other (Provide Purpose Below)**

---

---

**Description of Oversized Material, if applicable:**

**DRAWING 2: GROUNDWATER INVESTIGATIONS,  
EXPLOSIVE CHEMICAL STORAGE BUILDING,  
LOCATIONS AND CONSTITUENTS MAP**

---

---

**[ X ] Map    [    ] Photograph    [    ] Other (Specify Below)**

---

---